



California High-Speed Train Alignments & Stations Screening Evaluation Summary

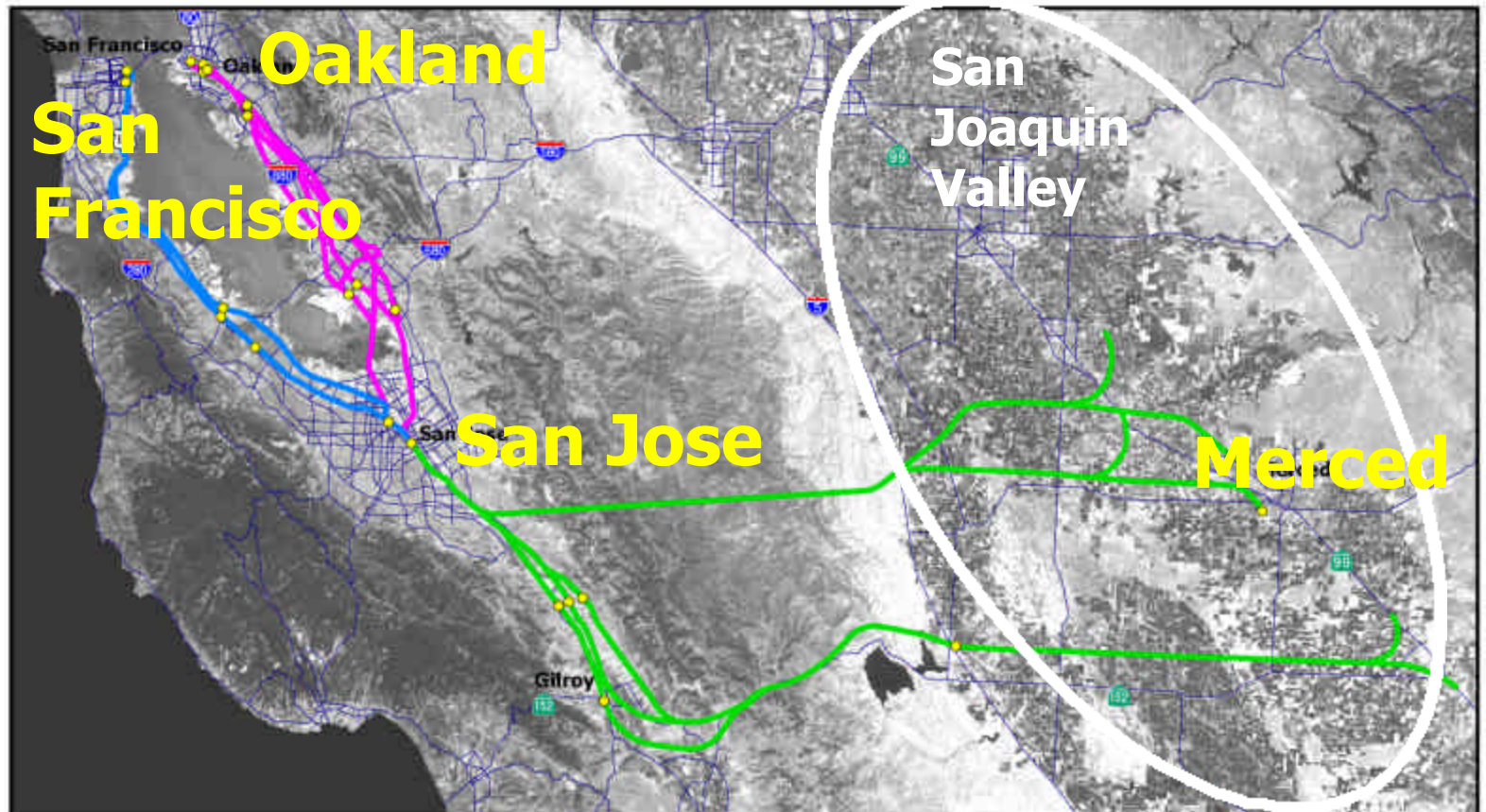
Bay Area-to-Merced



U.S. Department
of Transportation
**Federal Railroad
Administration**

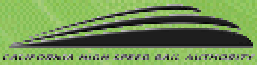
Authority Board Meeting – San Jose
August 1, 2001

Corridor Overview

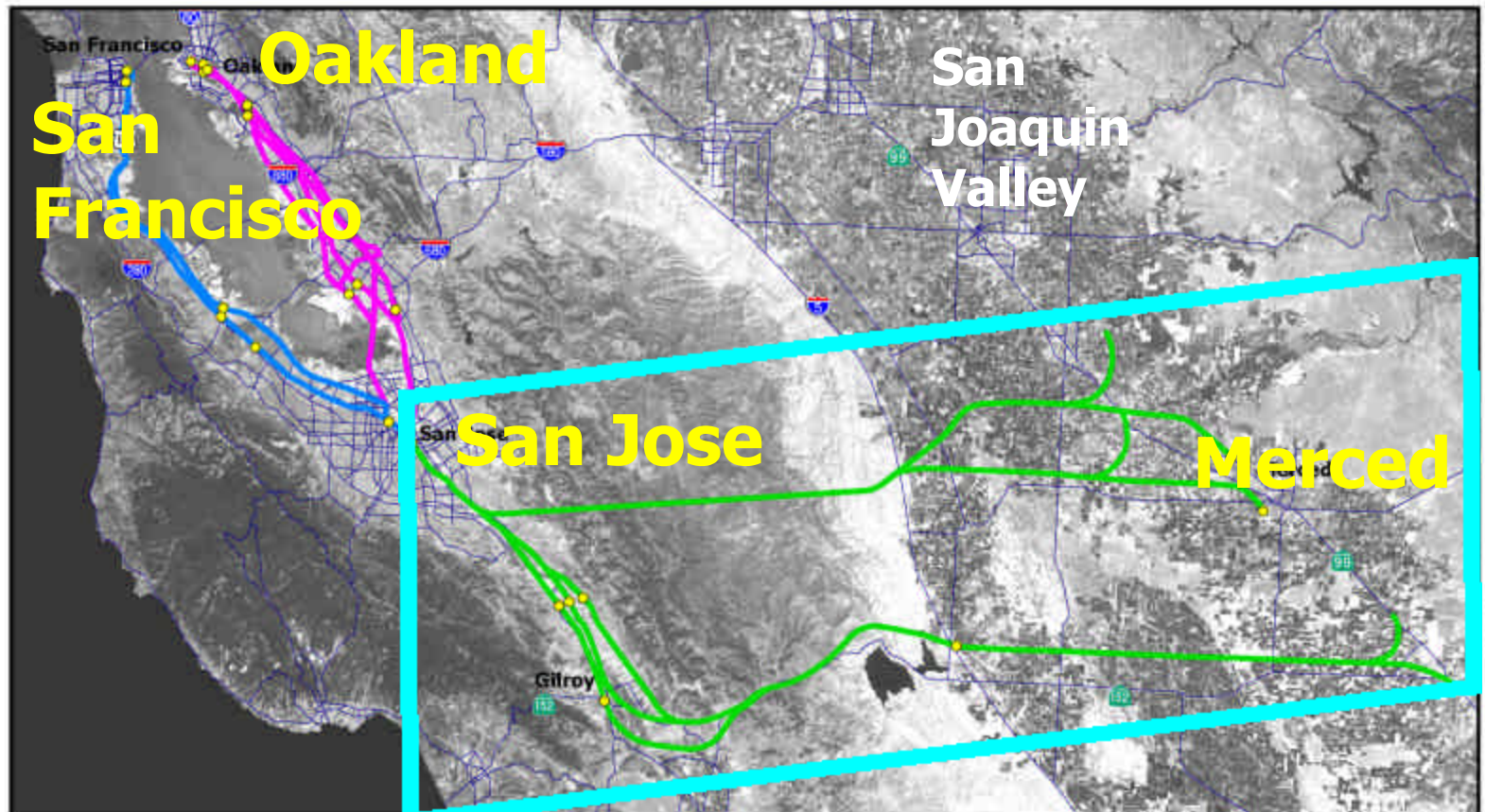


Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

California High-Speed Train Program EIR/EIS



Merced-to-San Jose Segment

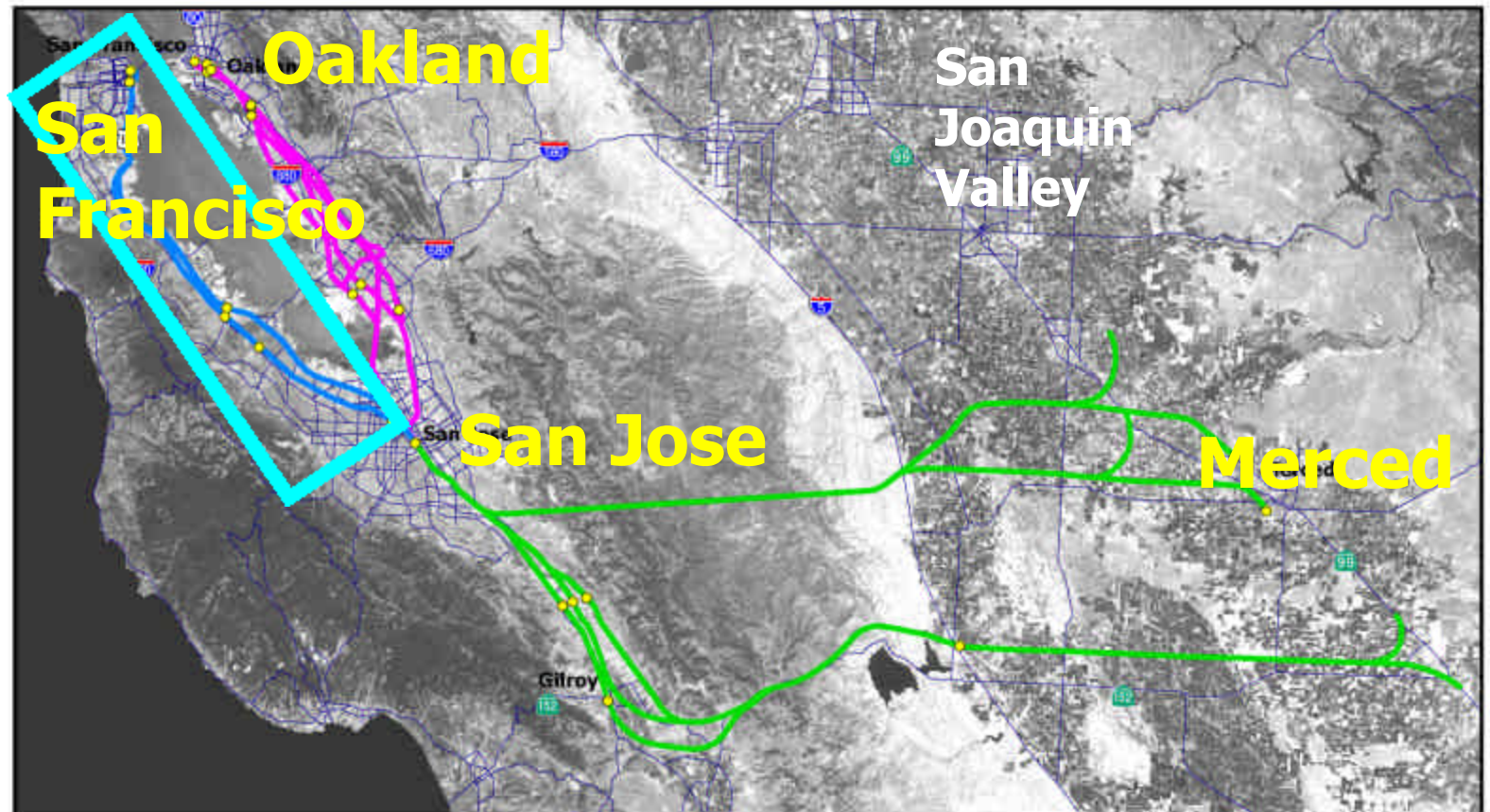


Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

California High-Speed Train Program EIR/EIS

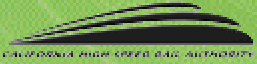
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San Jose-to-San Francisco Segment



Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

California High-Speed Train Program EIR/EIS





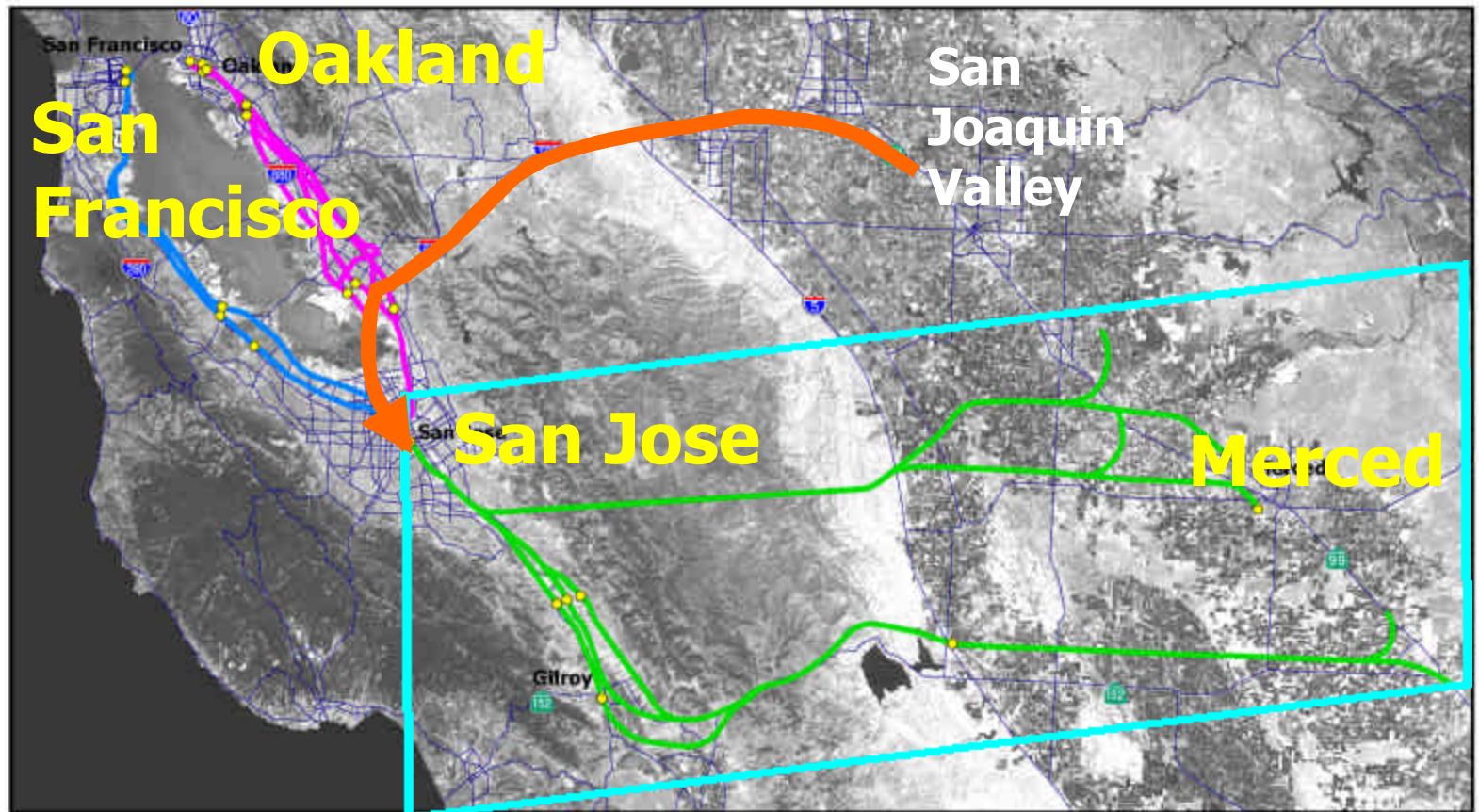
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**Federal Railroad
Administration**

A map of the San Francisco Bay Area and surrounding regions. The San Francisco Peninsula is outlined in red, and the San Joaquin Valley is outlined in green. Major cities labeled include San Francisco, Oakland, and San Jose. Highways 80, 580, 680, 990, and 99 are marked. The map also shows the San Joaquin River and the Merced River.

Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

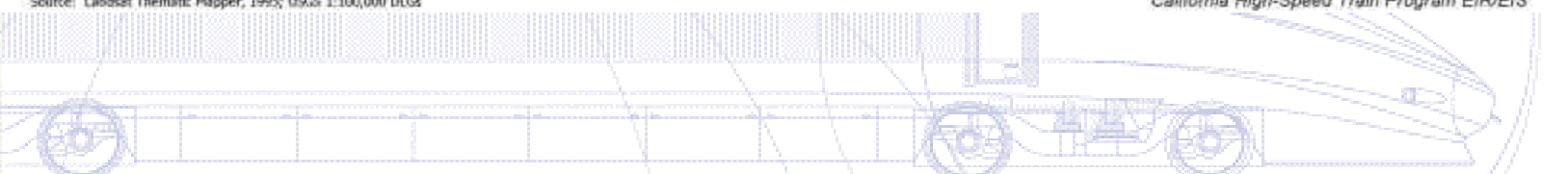
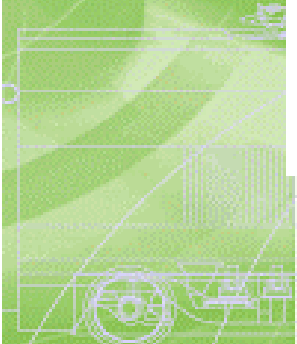
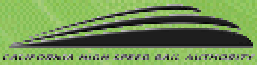
California High-Speed Train Program EIR/EIS

Altamont Pass Option Withdrawn

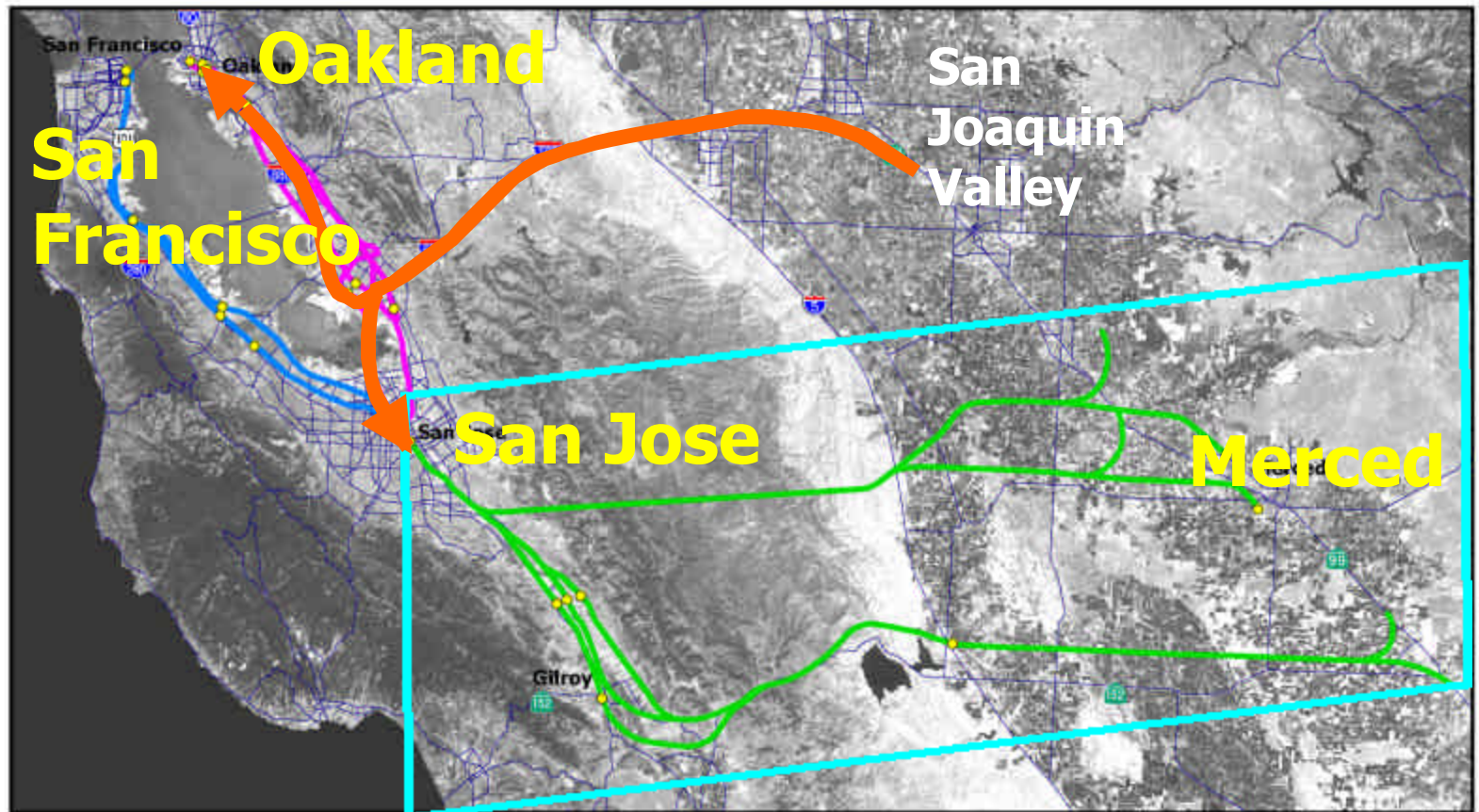


Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

California High-Speed Train Program EIR/EIS

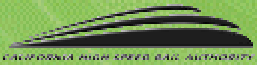


Altamont Pass Option Withdrawn

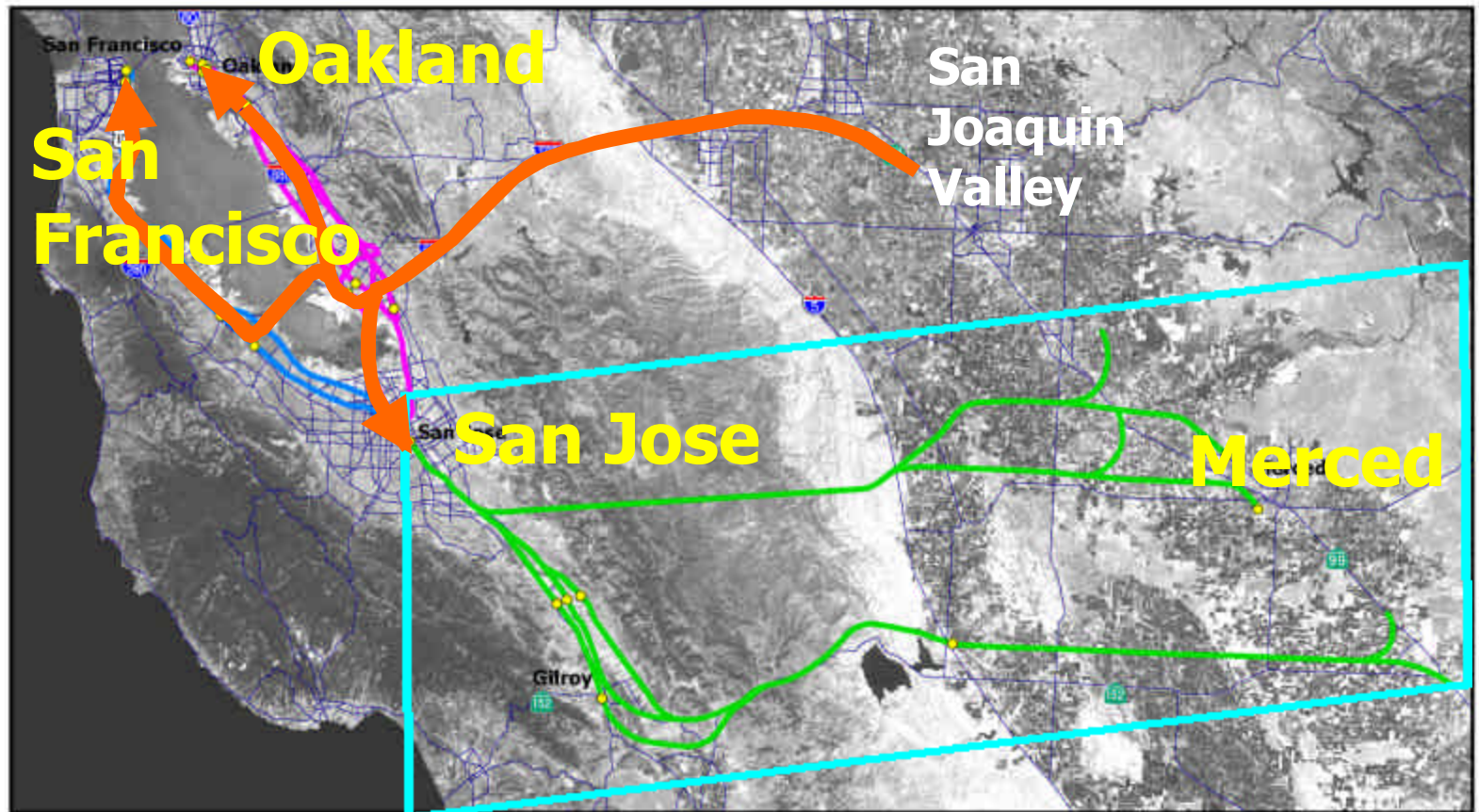


Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

California High-Speed Train Program EIR/EIS

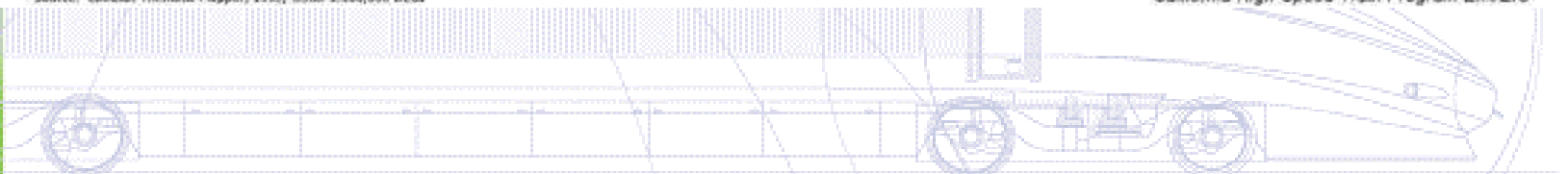


Altamont Pass Three Directions

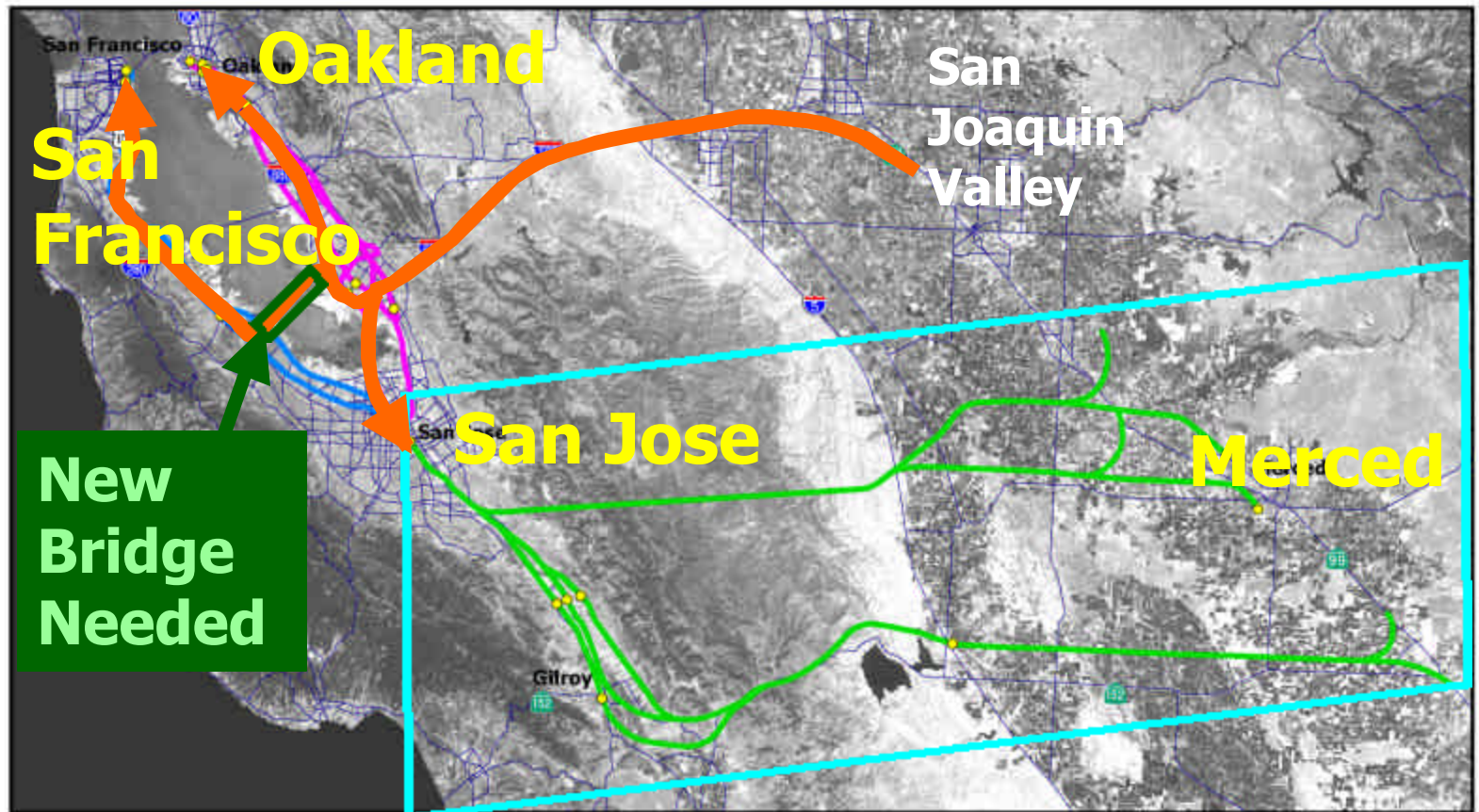


Source: Landsat Thematic Mapper, 1995; USGS 1:100,000 DLGs

California High-Speed Train Program EIR/EIS



Altamont Pass New Bay Bridge

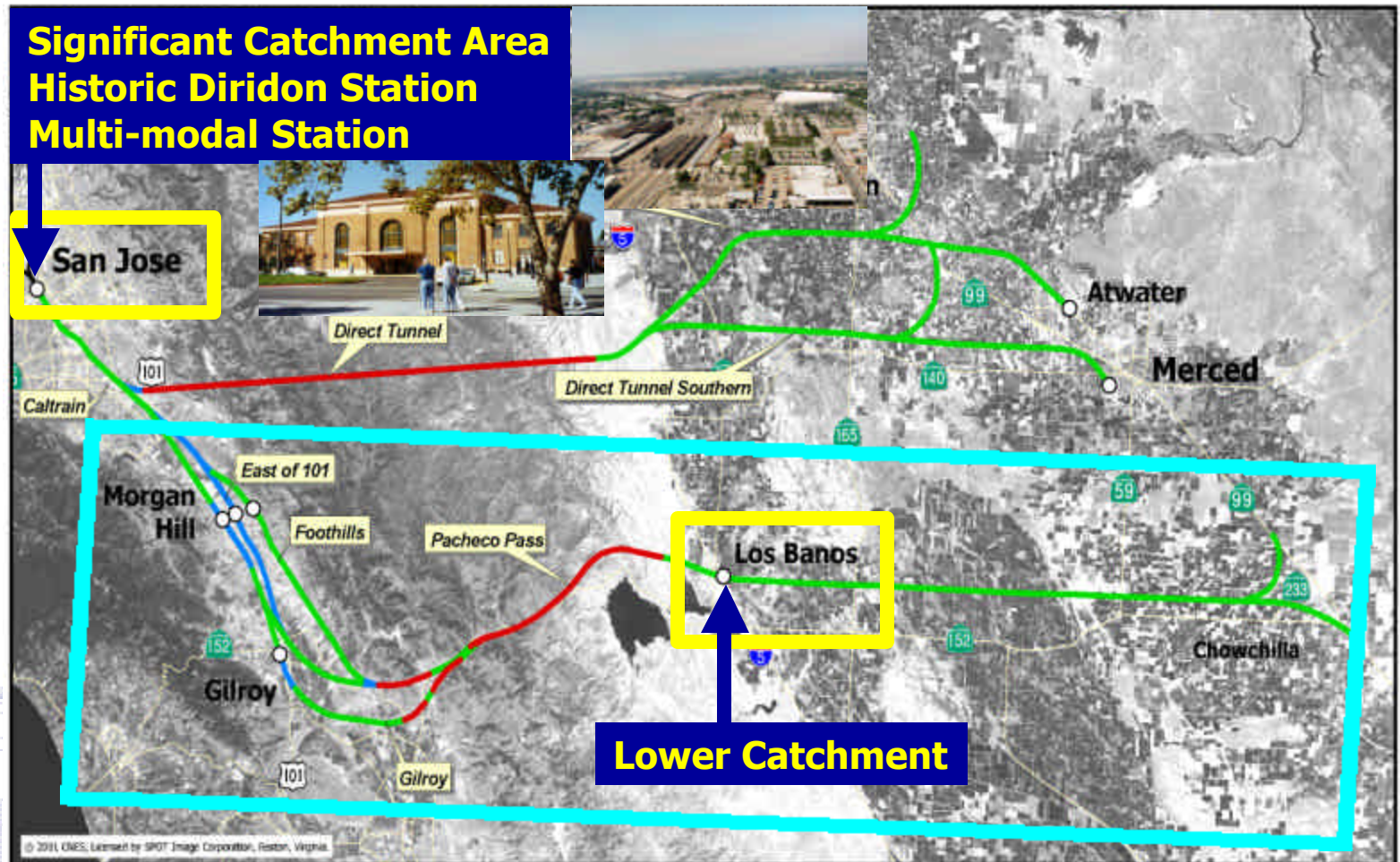


**Panoche Pass Option Further South
Adds Major Cost & Reduces Ridership**

Pacheco Pass Alignments

**Significant Catchment Area
Historic Diridon Station
Multi-modal Station**

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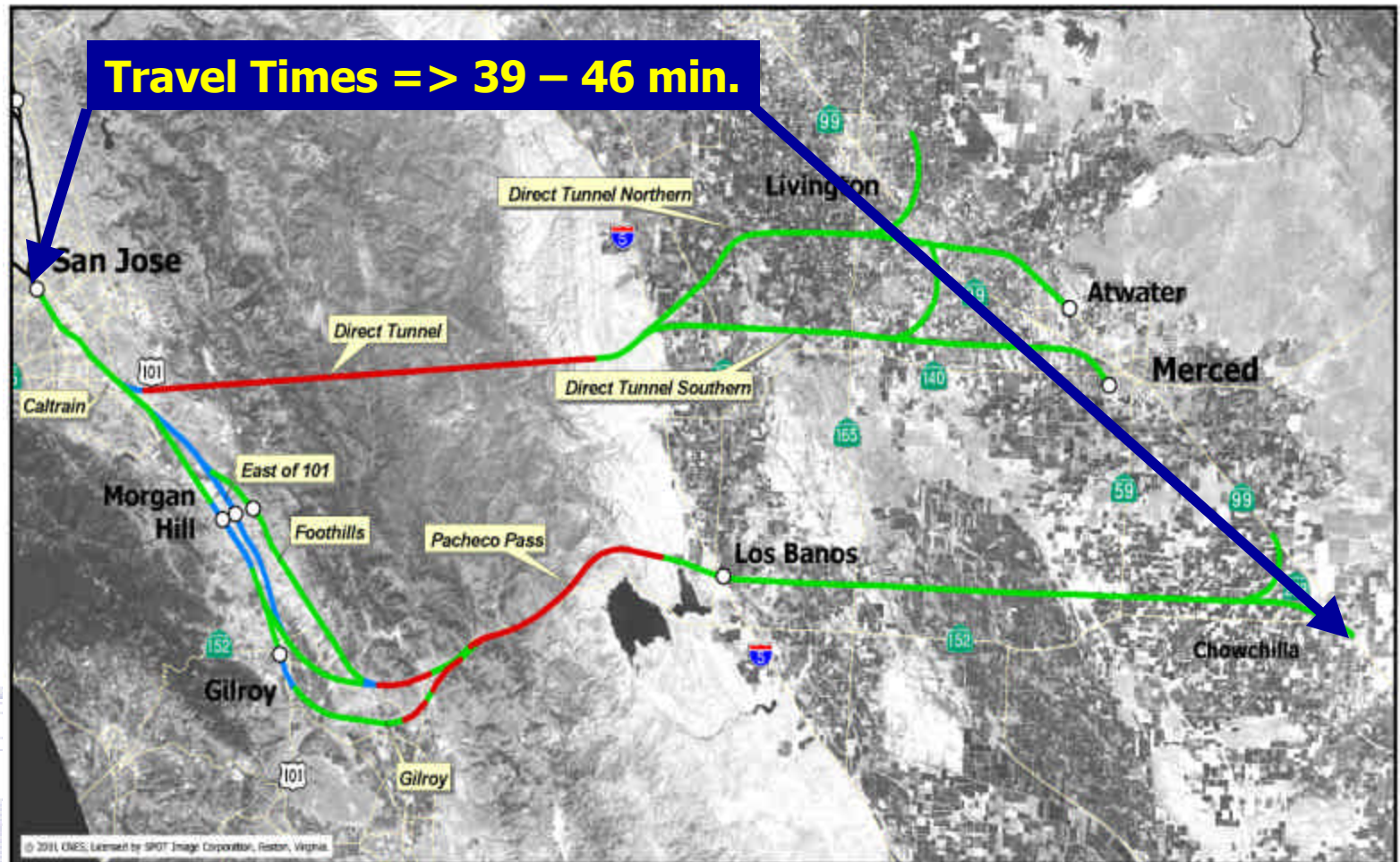
Lower Catchment

Source: Image Acquisition Dates: January 1998 - September 2000.

California High-Speed Train Program EIR/EIS

Pacheco Pass Alignments

Travel Times => 39 – 46 min.

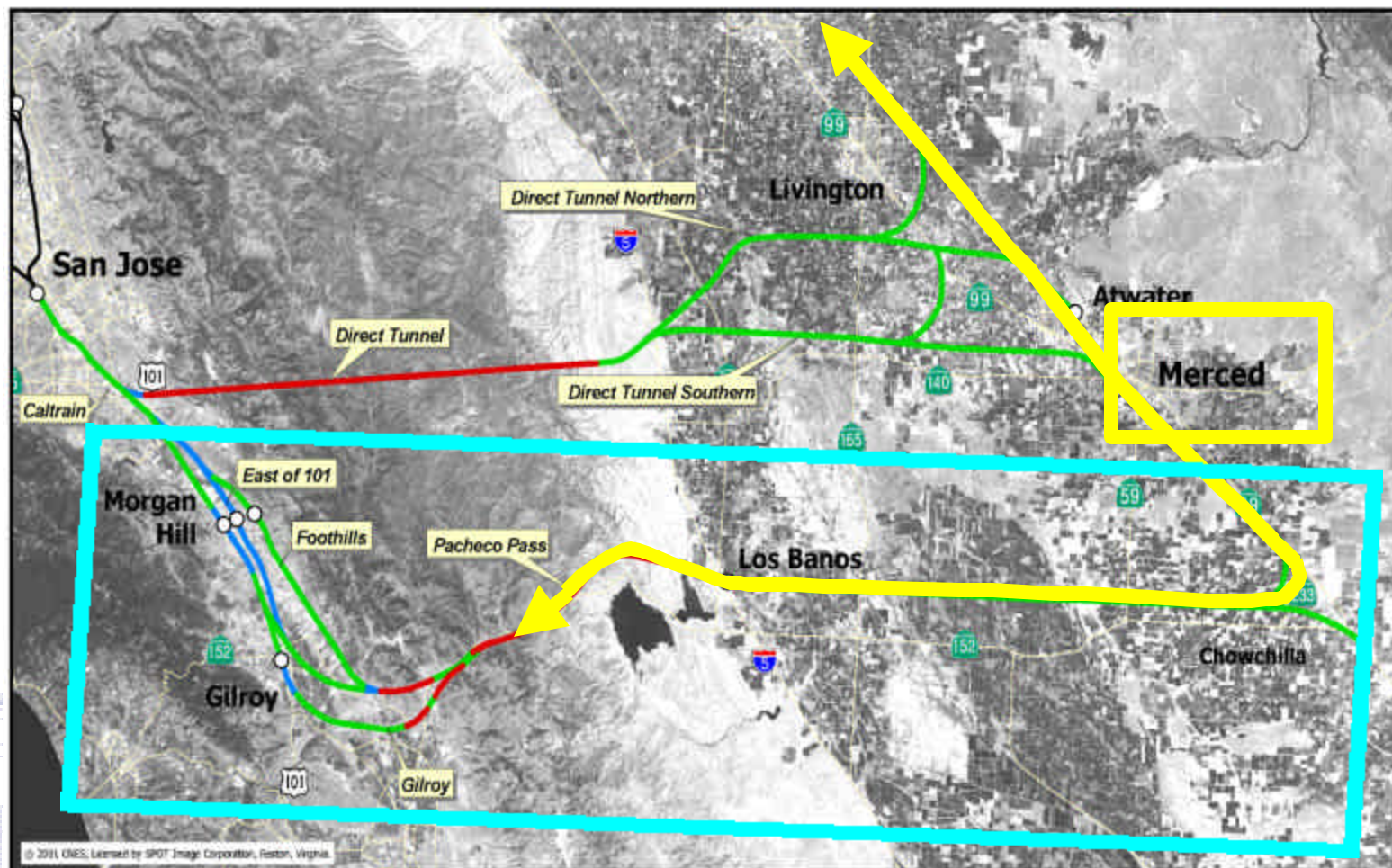


California High-Speed Train Program EIR/EIS



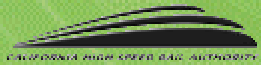
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Merced Area on Sacramento- to- San Jose Line

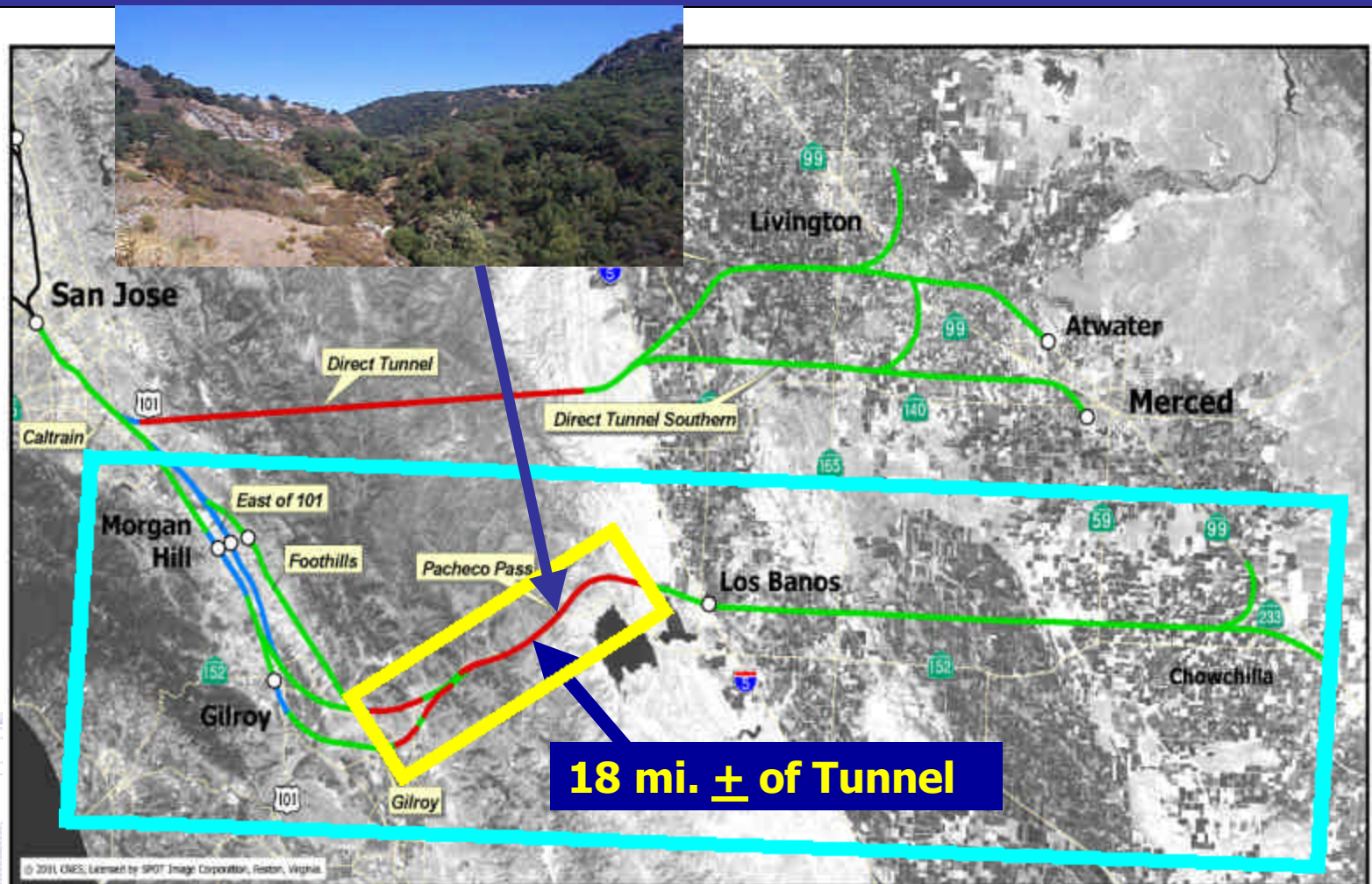


Source: Image Acquisition Dates: January 1998 - September 2000.

California High-Speed Train Program EIR/EIS



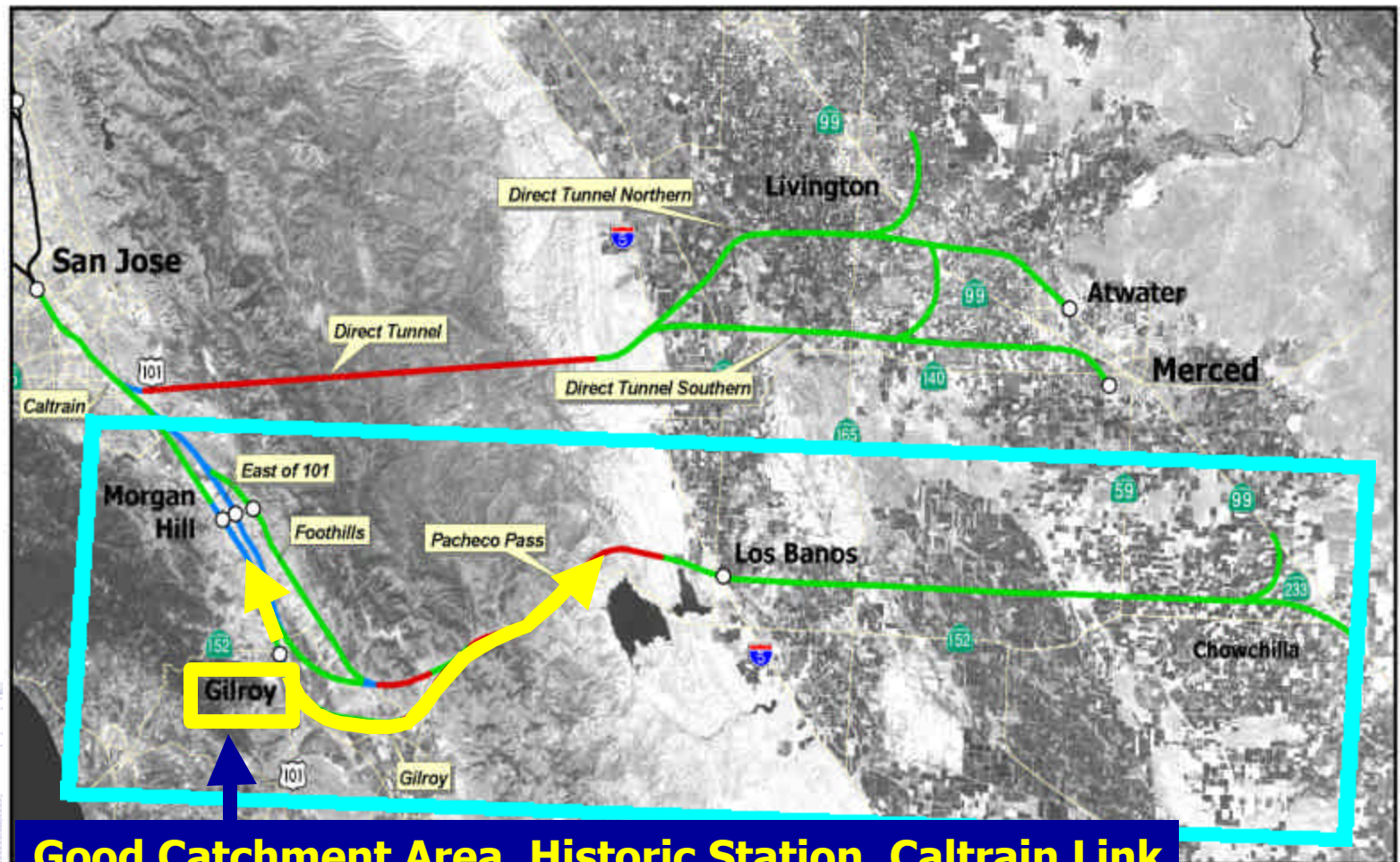
Pacheco Pass Alignments



Source: Image Acquisition Dates: January 1998 - September 2000.

California High-Speed Train Program EIR/EIS

Pacheco Pass/Gilroy/ Caltrain Alignment



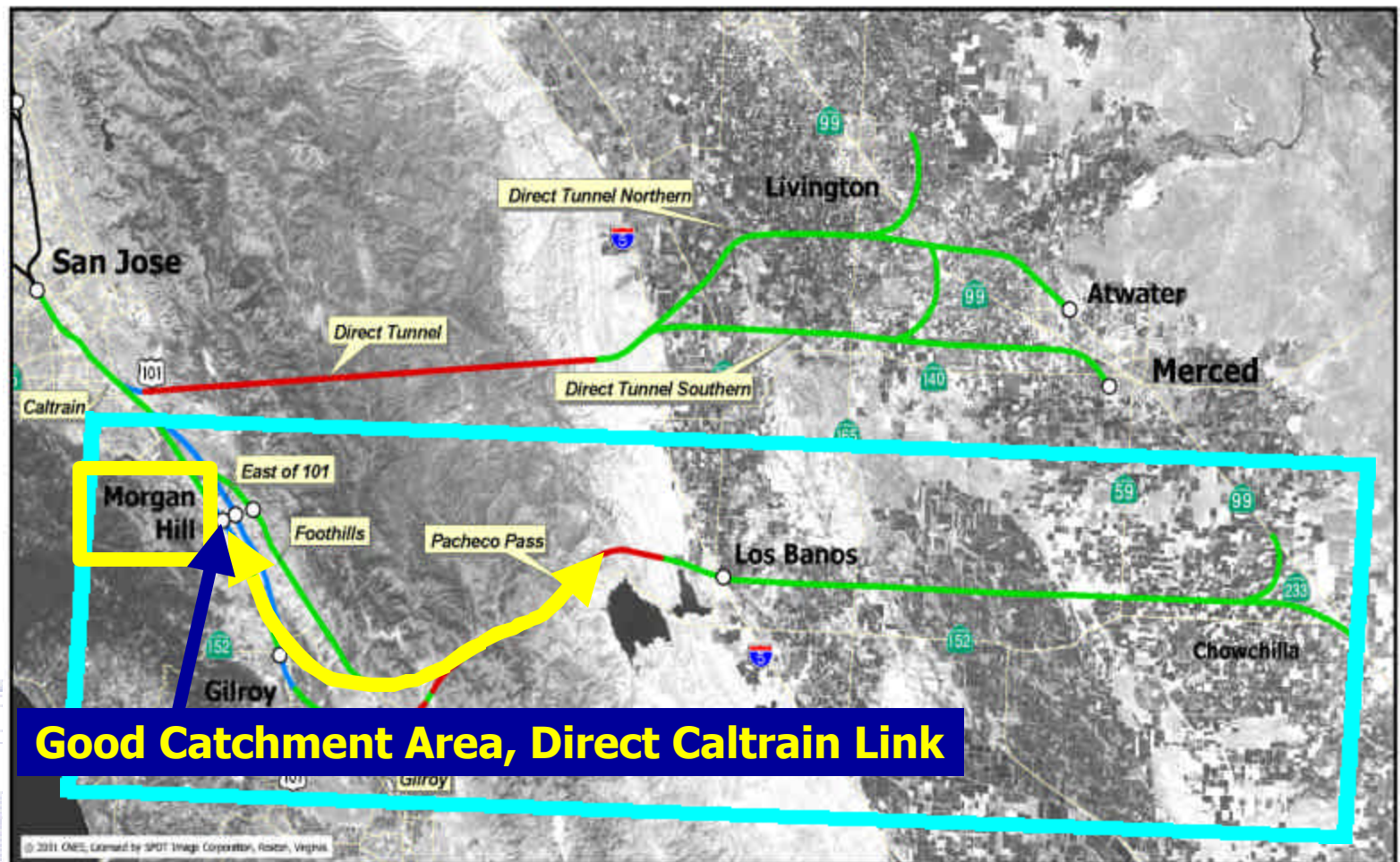
Good Catchment Area, Historic Station, Caltrain Link

Speed Train Program EIR/EIS



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Pacheco Pass/Morgan Hill/Caltrain

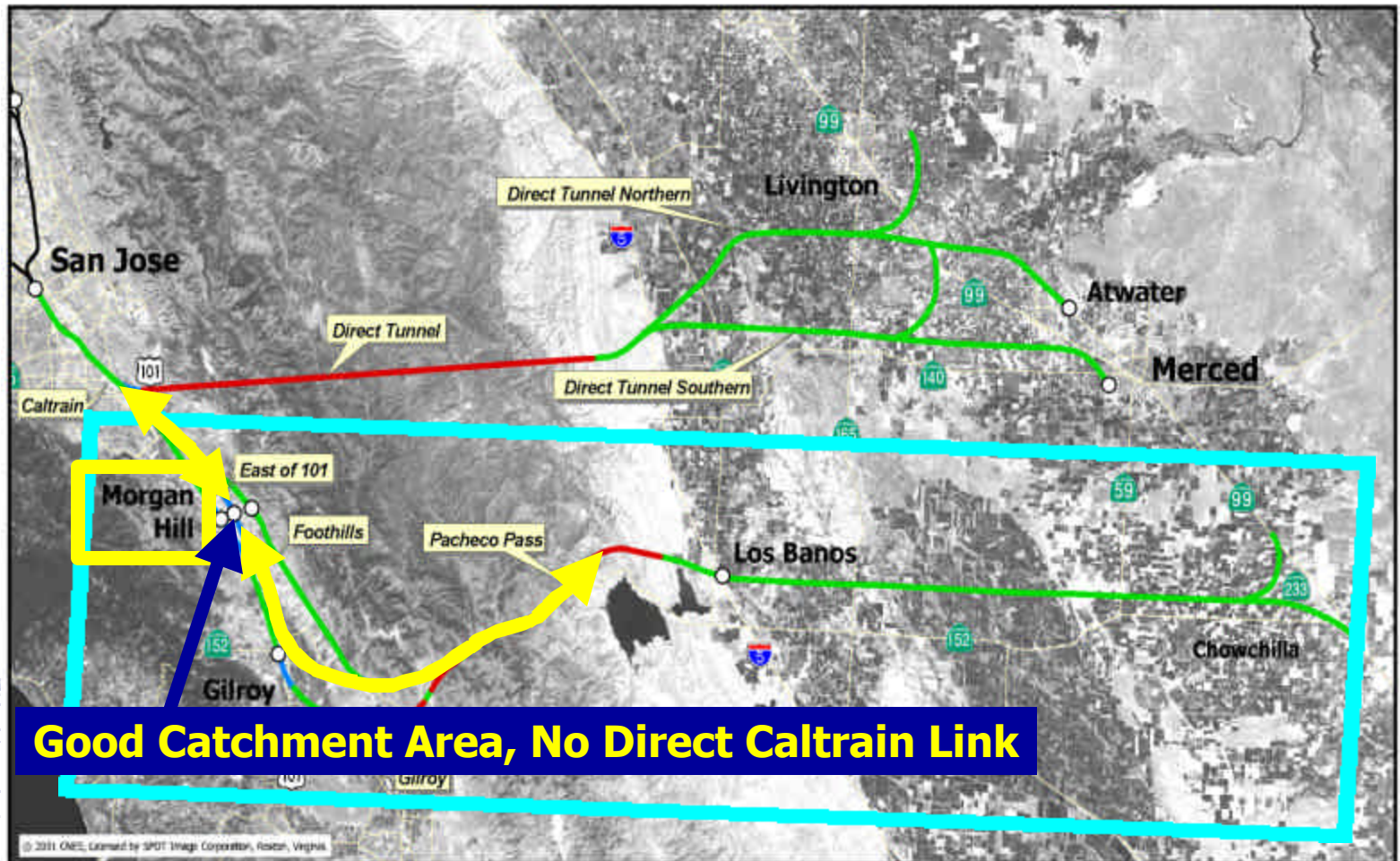


Source: Image Acquisition Dates: January 1998 - September 2000.

California High-Speed Train Program EIR/EIS

Pacheco Pass/East of 101/ Caltrain

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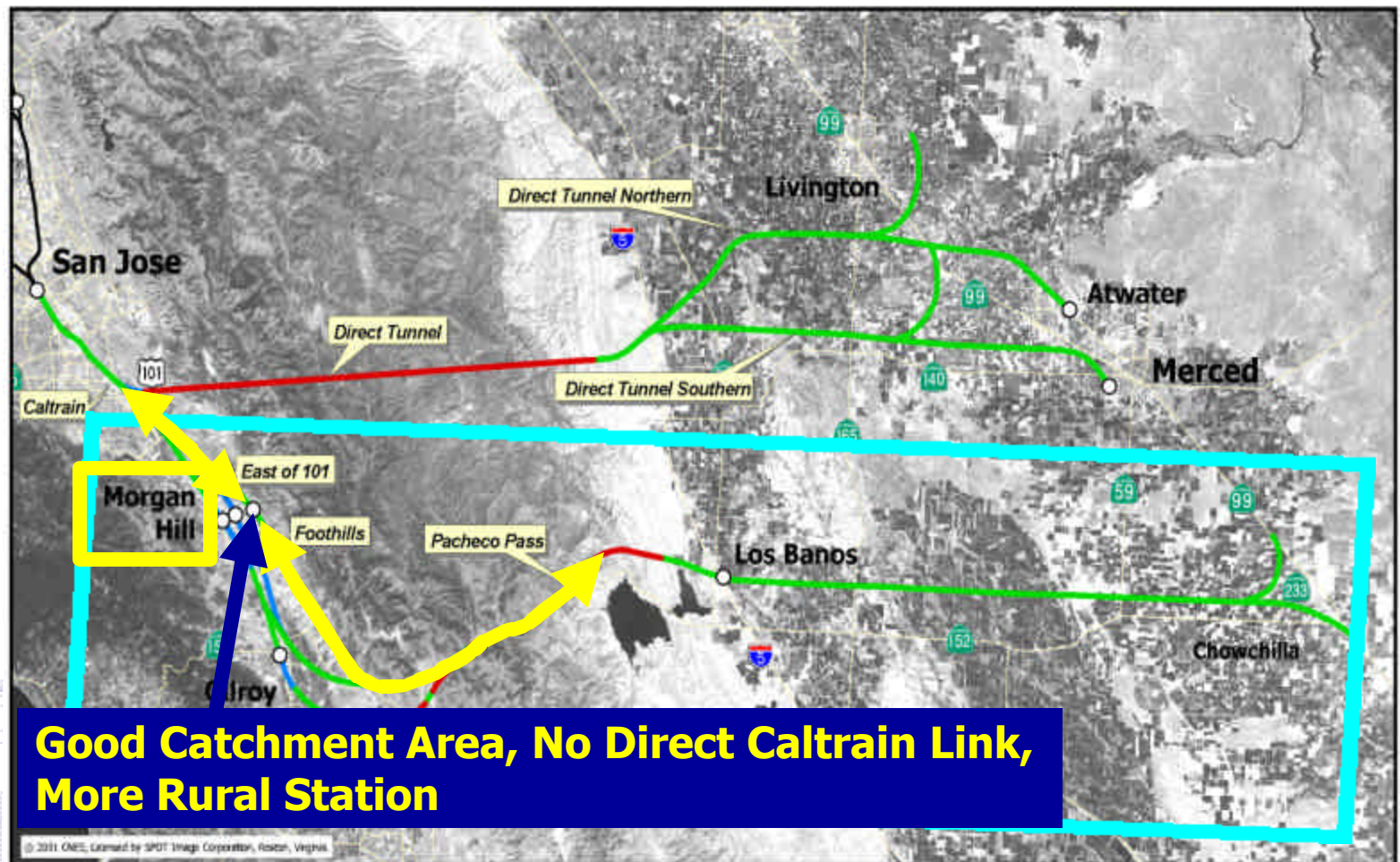


Good Catchment Area, No Direct Caltrain Link

Source: Image Acquisition Dates: January 1998 - September 2000.

California High-Speed Train Program EIR/EIS

Pacheco Pass/ Foothills/Caltrain



**Good Catchment Area, No Direct Caltrain Link,
More Rural Station**

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Source: Image Acquisition Dates: January 1998 - September 2000.

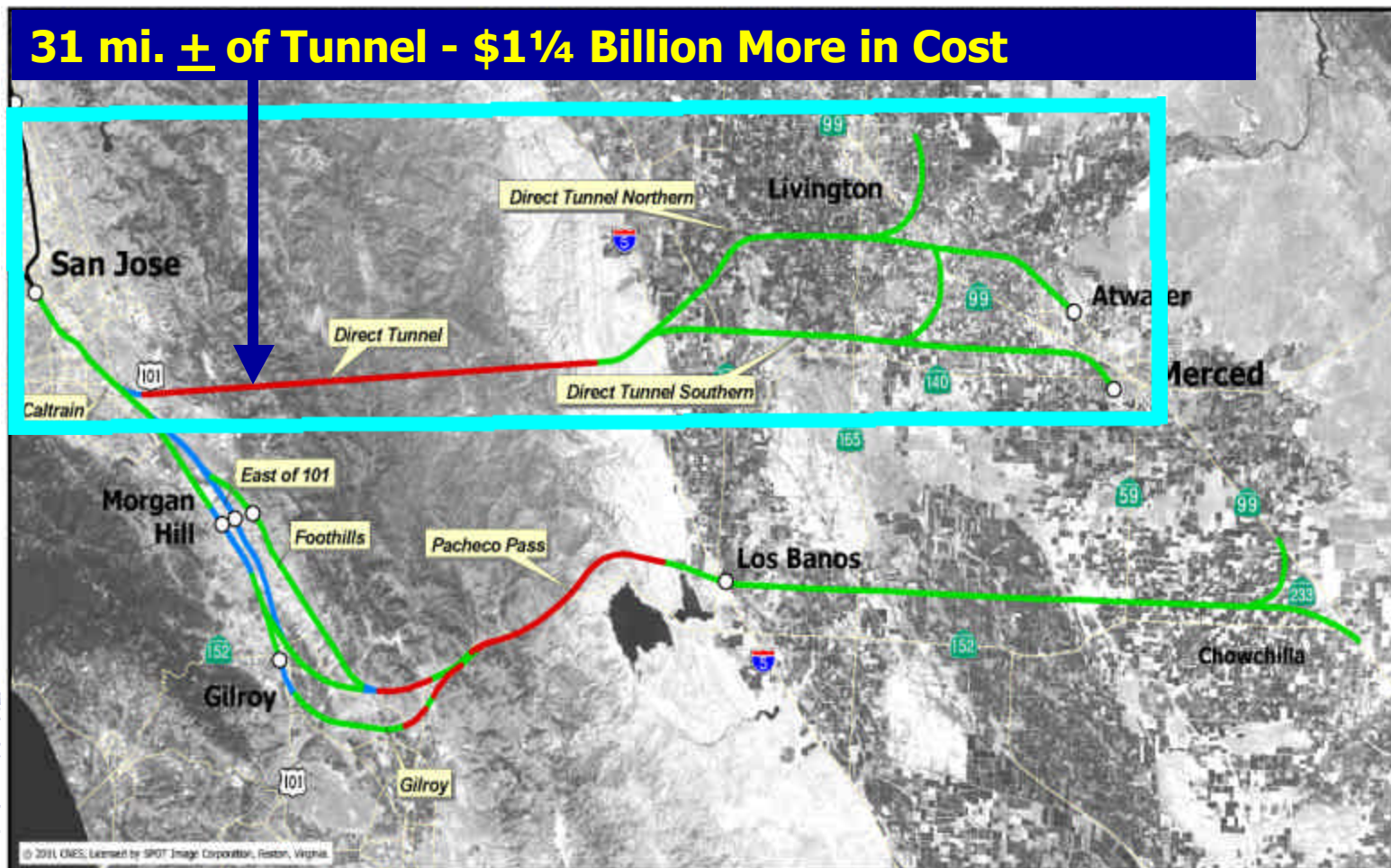
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Direct Tunnel Alignments

31 mi. \pm of Tunnel - \$1¼ Billion More in Cost

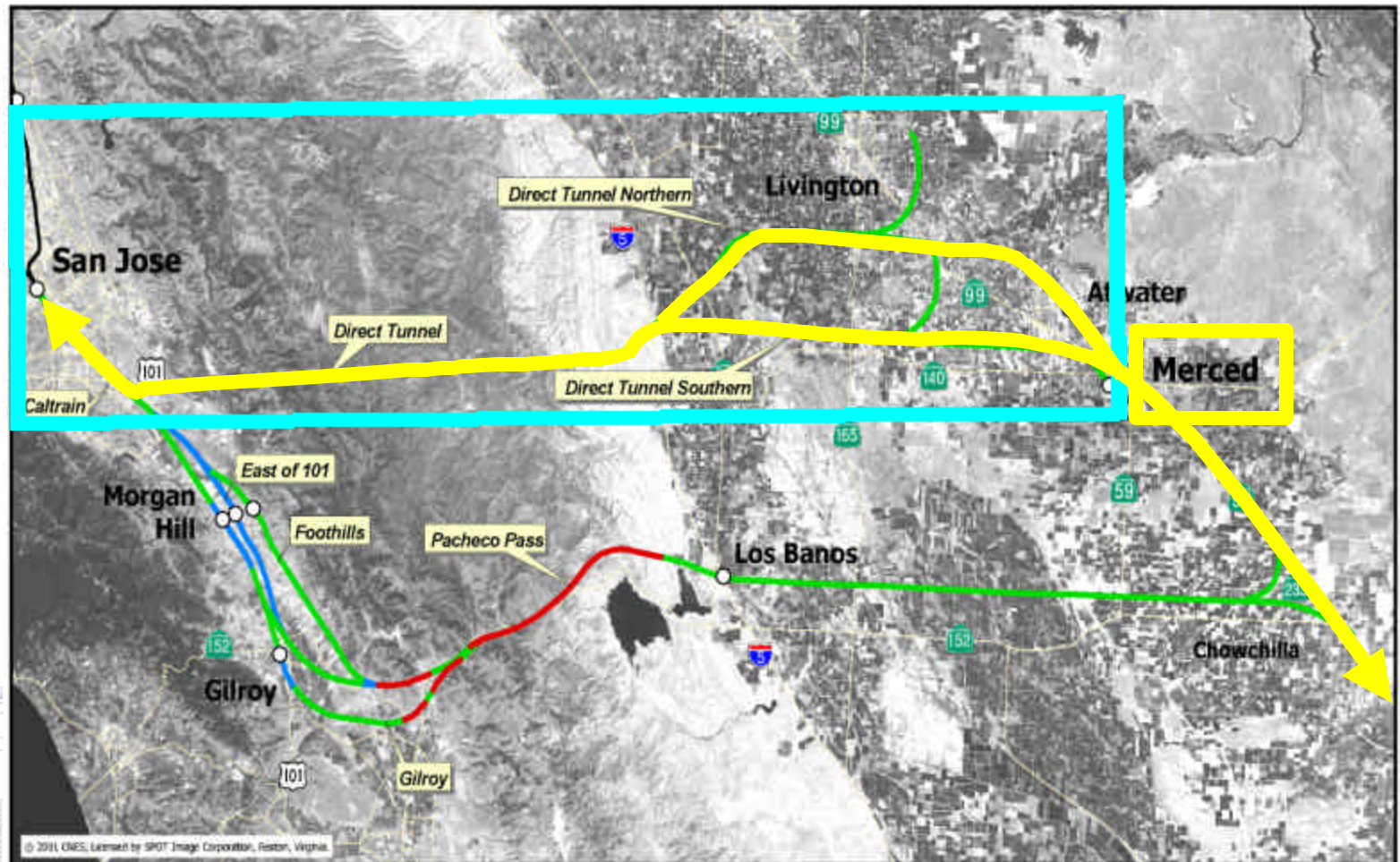


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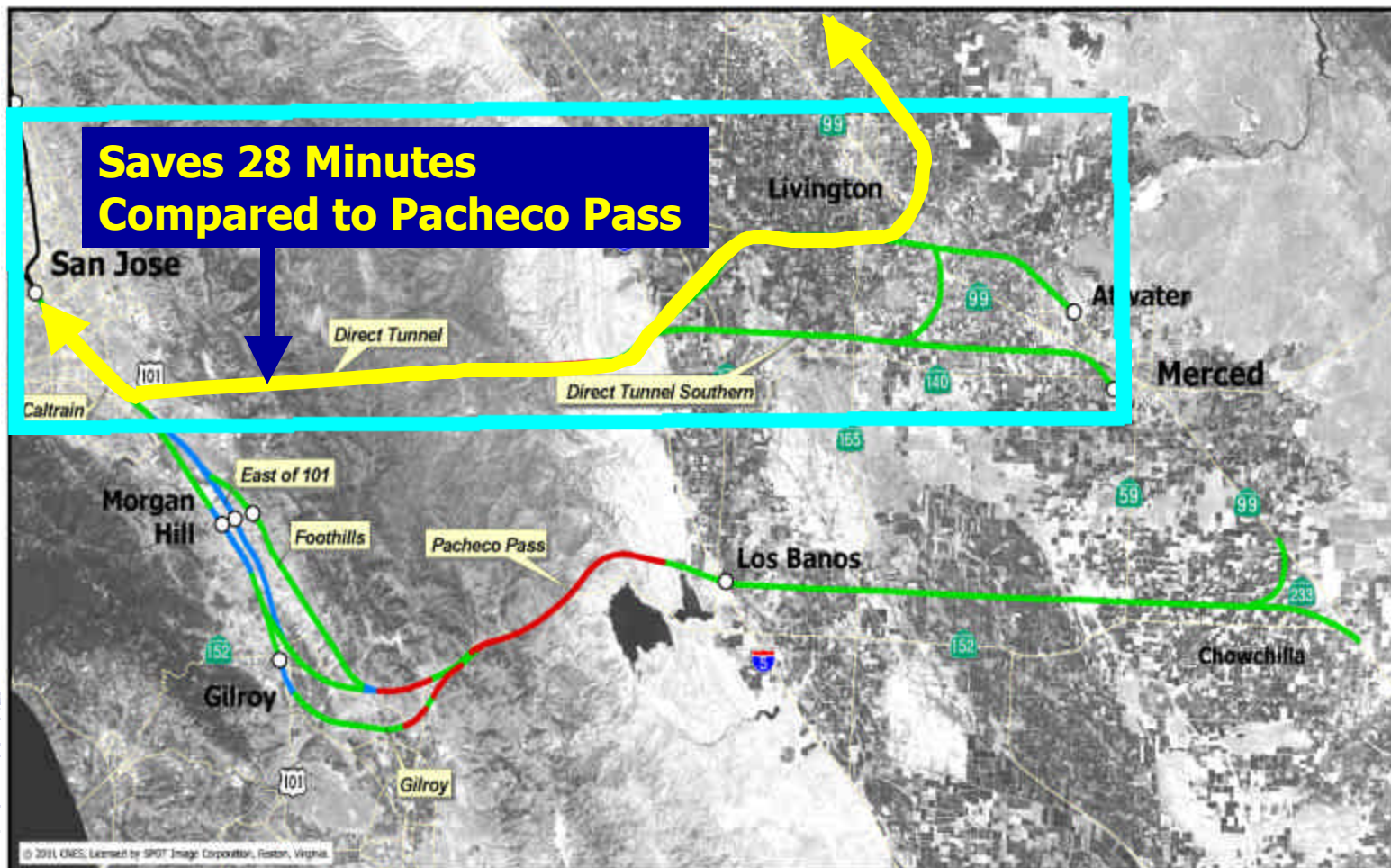


Source: Image Acquisition Dates: January 1998 - September 2000

California High-Speed Train Program EIR/EIS

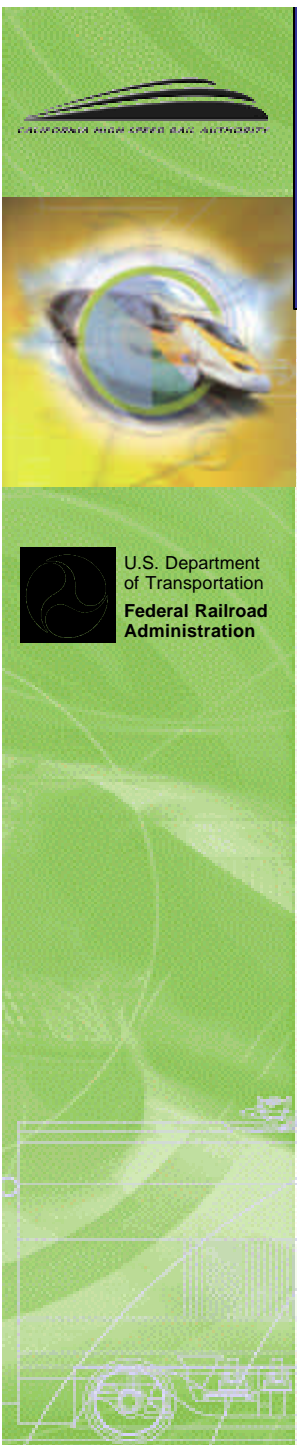
Faster Service from Sacramento to San Jose

**Saves 28 Minutes
Compared to Pacheco Pass**

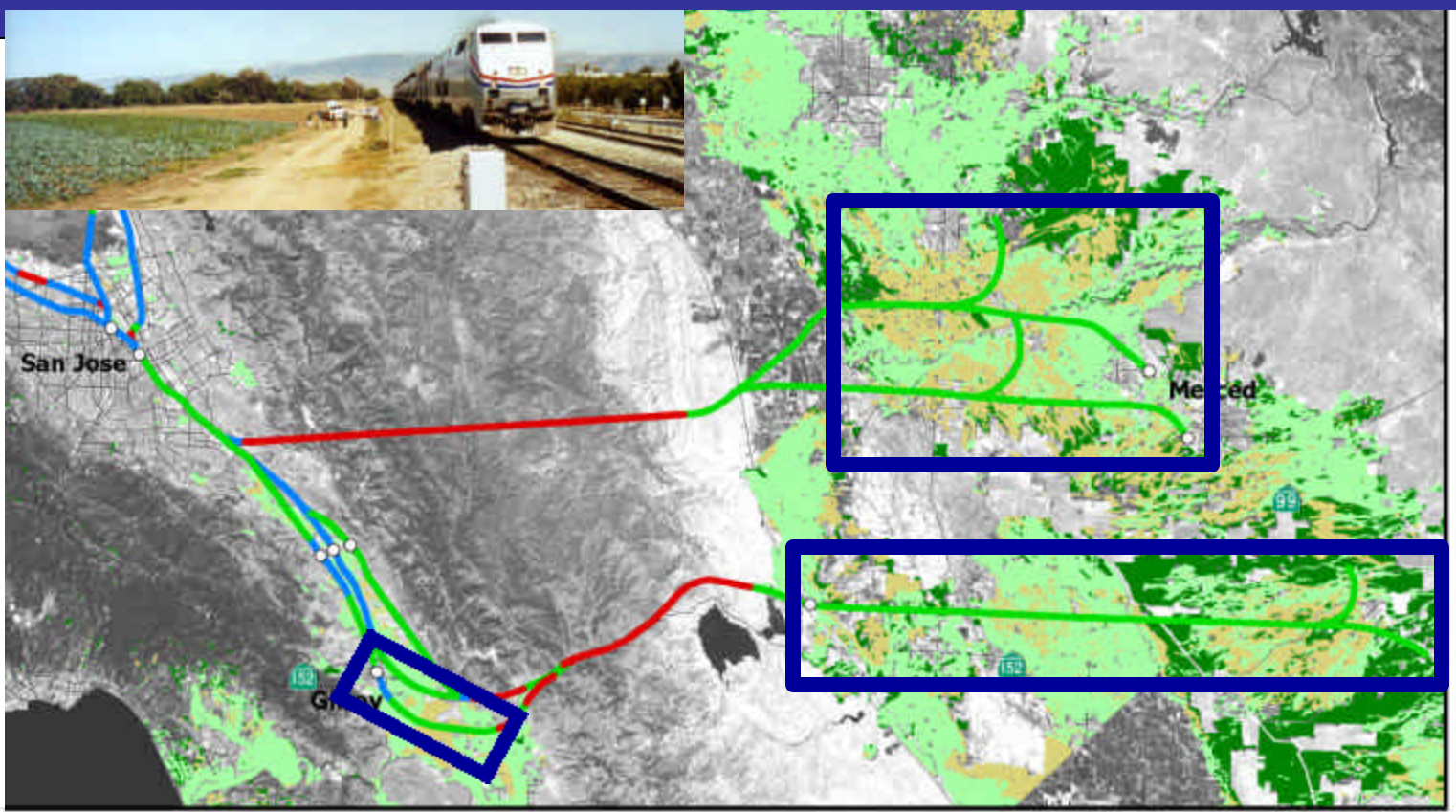


Source: Image Acquisition Dates: January 1998 - September 2000.

California High-Speed Train Program EIR/EIS



Farmland Issues

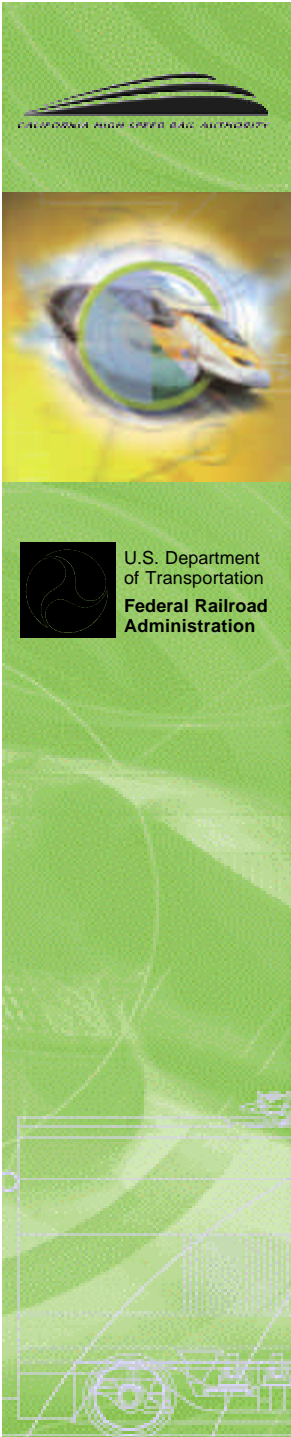


National Resource Conservation Service

California High-Speed Train Program EIR/EIS



**Farmland Resources
Bay Area to Merced Corridor**



Water Resource/Wetland/ Floodplain Issues



USGS Digital Line Graphs (Hydrography)

California High-Speed Train Program EIR/EIS



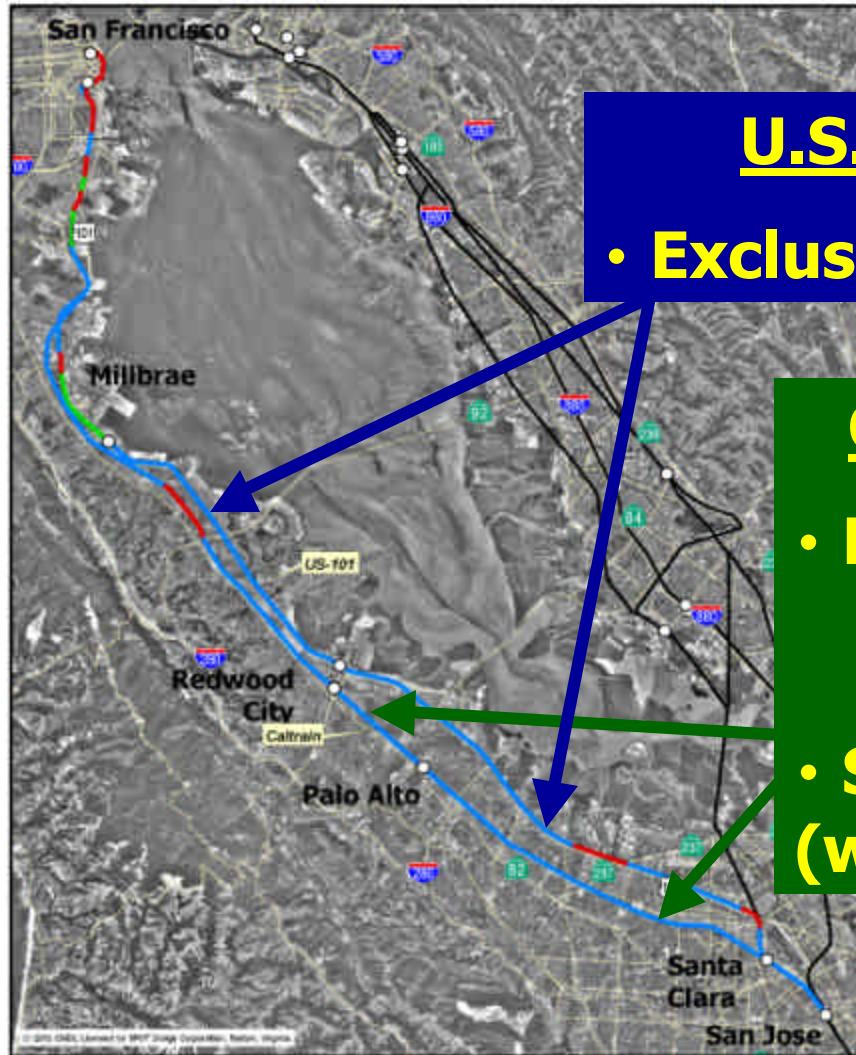
**Water Resources and Floodplains
Bay Area to Merced Corridor**

- **Exclusive Guideway Only**

• Exclusive Guideway

OR

- **Share tracks (with Caltrain)**

Source: <http://www.irs.gov>; January 1998 - September 2000

California High-Speed Train Program EIR/EIS

Exclusive Guideway U.S. 101 & Caltrain Corridors

In San Francisco (Both Alignments)

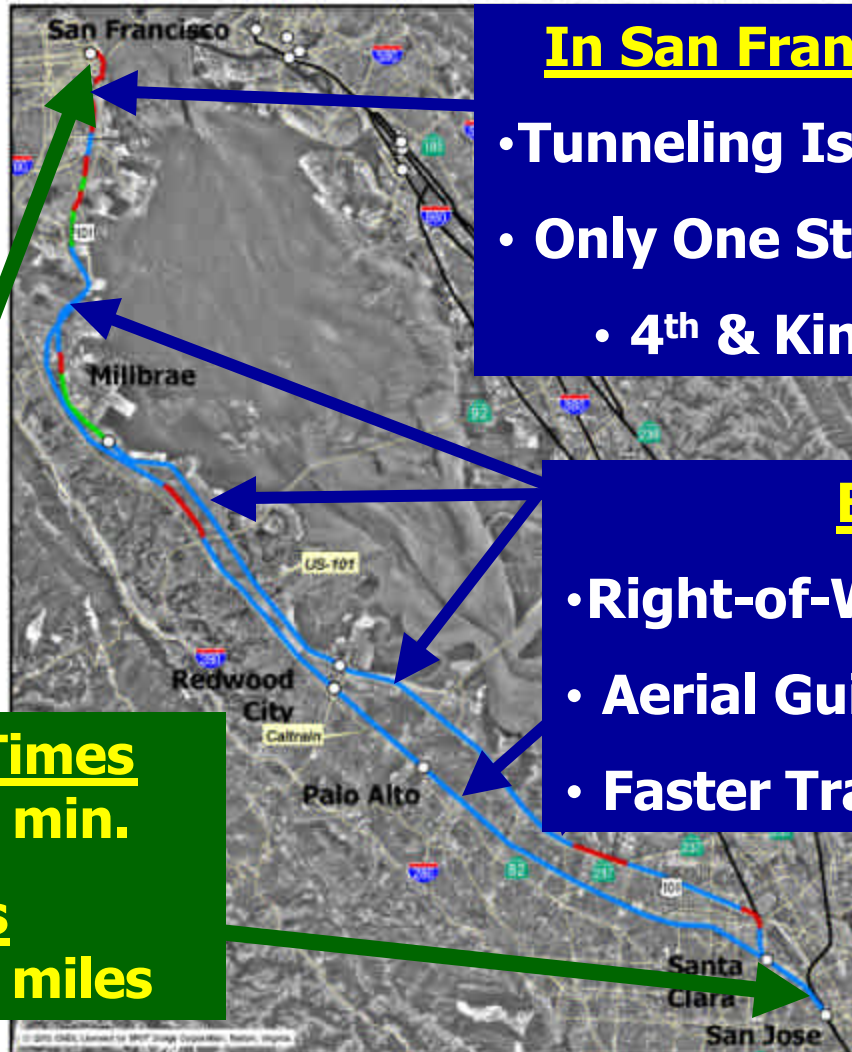
- Tunneling Issues
- Only One Station
 - 4th & King OR Transbay Terminal

Both Alignments

- Right-of-Way Issues/Costs
- Aerial Guideway – Visual Effects
- Faster Train Speeds

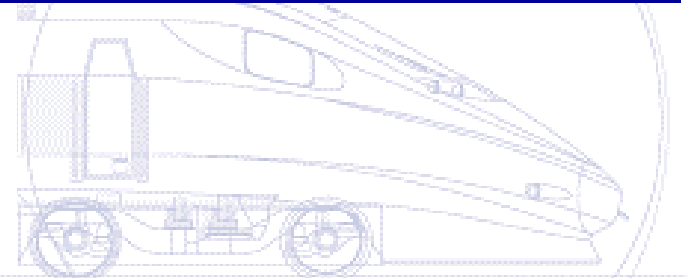
Travel Times
28 – 31 min.

Lengths
47 – 48 miles



Source: Image Acquisition Date: January 2008 - September 2008.

California High-Speed Train Program EIR/EIS

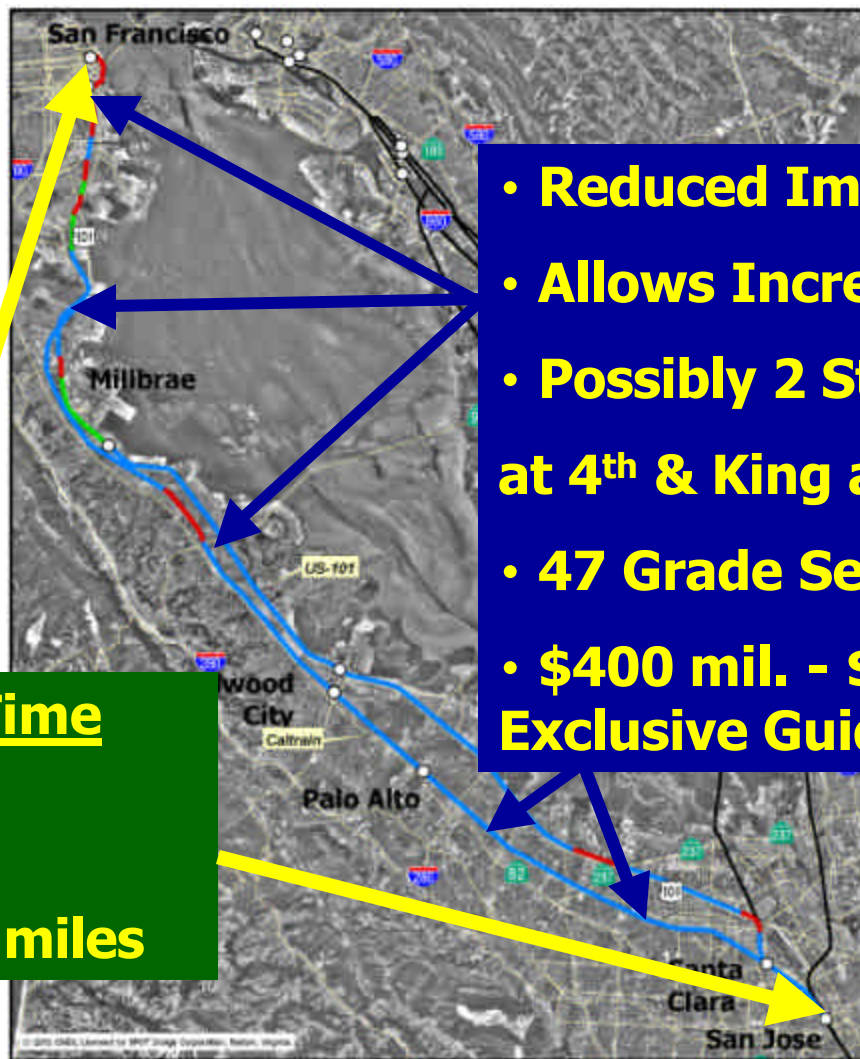


Shared Use of Caltrain Tracks

- Reduced Impact on Communities
- Allows Incremental Implementation
- Possibly 2 Stations in San Francisco at 4th & King and Transbay Terminal
- 47 Grade Separations
- \$400 mil. - \$1 Billion Less than Exclusive Guideway Options

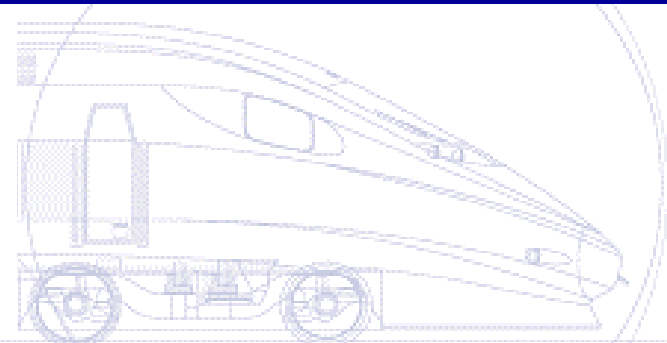
Travel Time
35 min.

Length
47 – 48 miles



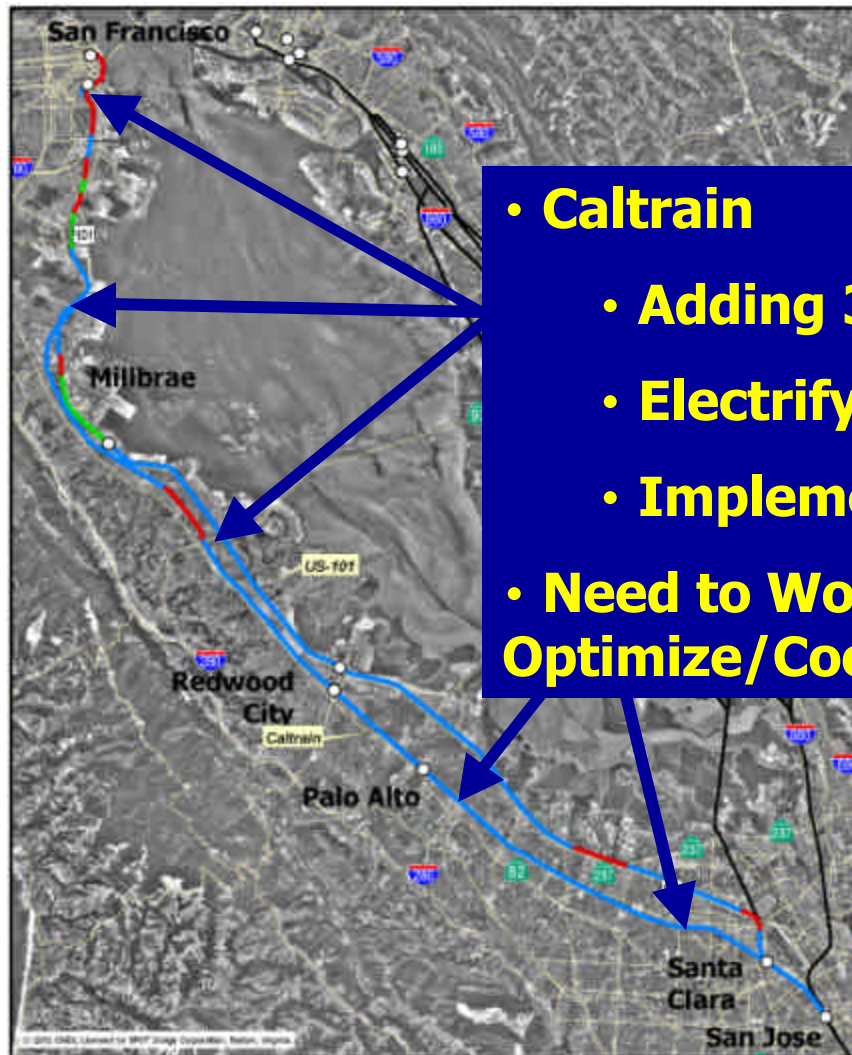
Source: Image Acquisition Date: January 2006 - September 2006.

California High-Speed Train Program EIR/EIS

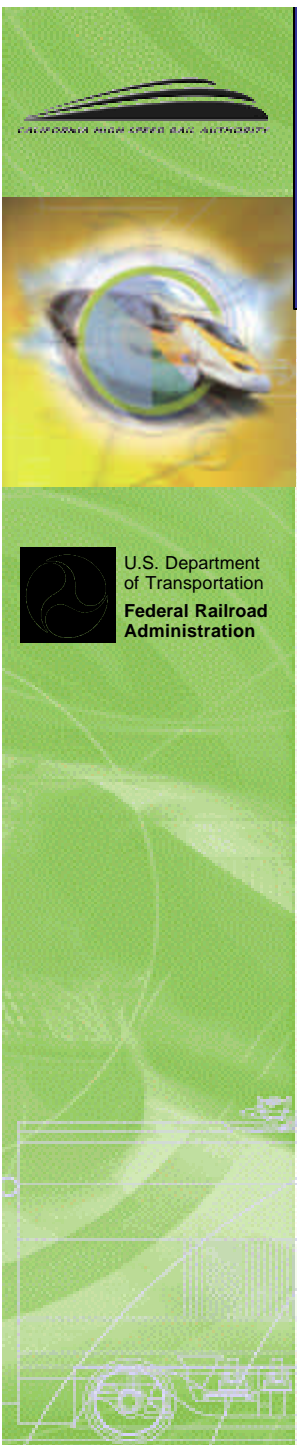


Shared Use of Caltrain Tracks

- **Caltrain**
 - Adding 3rd & 4th Tracks
 - Electrifying
 - Implementing "Baby Bullet"
- Need to Work with Caltrain to Optimize/Coordinate Schedules



California High-Speed Train Program EIR/EIS



Station Options



**Caltrain & City of San Francisco
Pursuing New Transbay Terminal
& Caltrain Downtown Extension**

Transbay Terminal

And/Or

4th & King

**MAJOR
CATCHMENT
AREA**

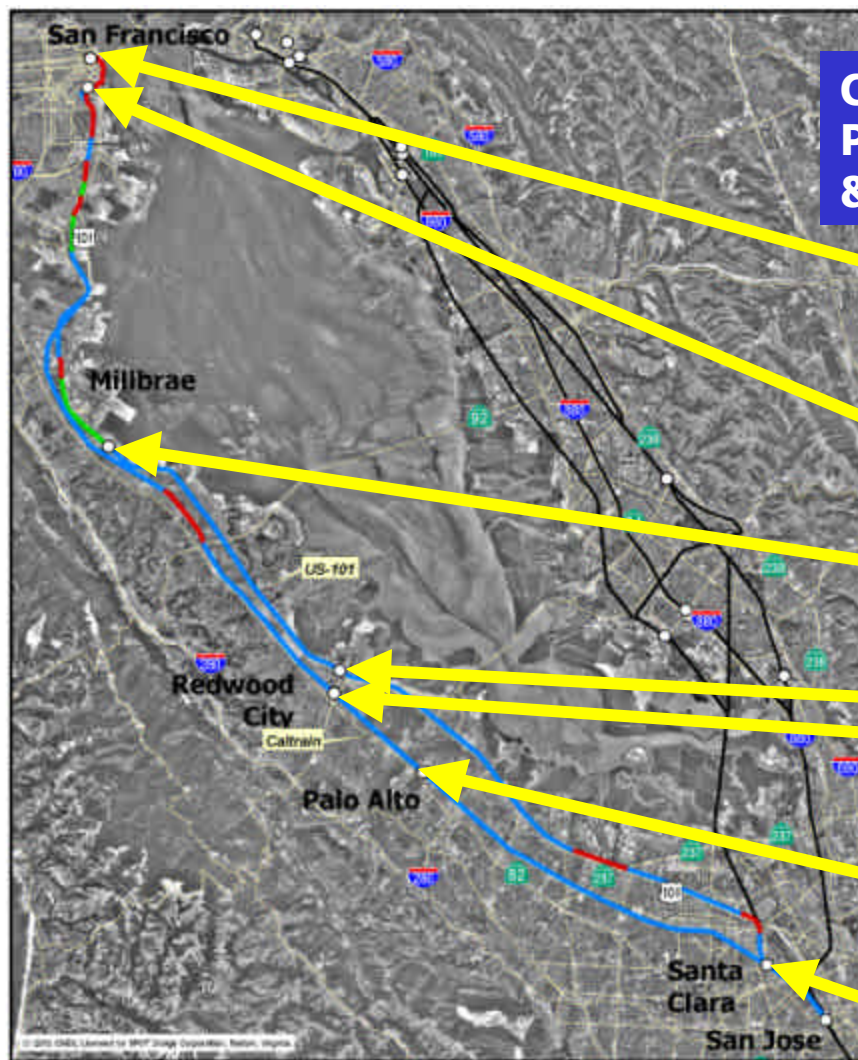
SFO (Millbrae)

Redwood City

Or

Palo Alto

Santa Clara (Optional)



Source: Image Acquisition Date: January 2006 - September 2006

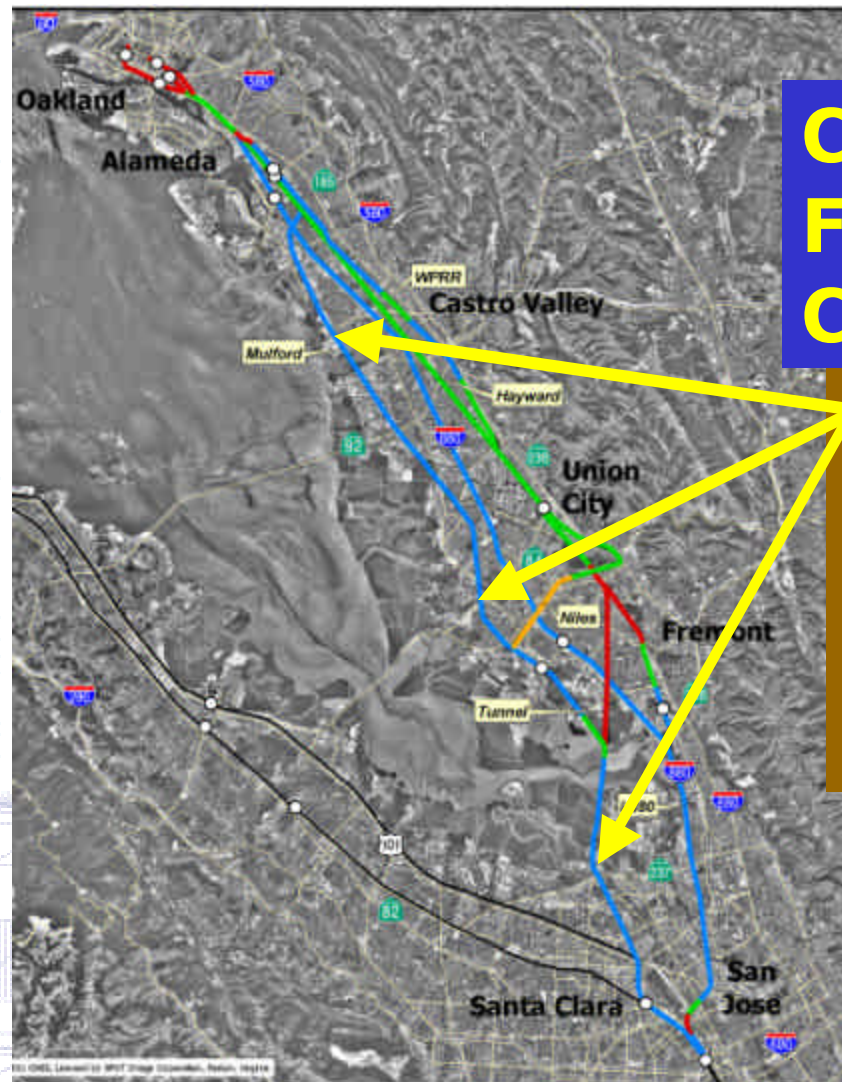
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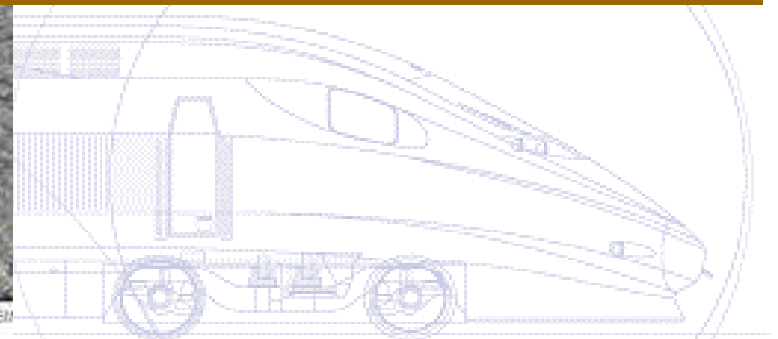
Combinations of Five Transportation Corridors

- **I - 880**



©: Insigne Académico Distinguido: January 1998 - September 2000

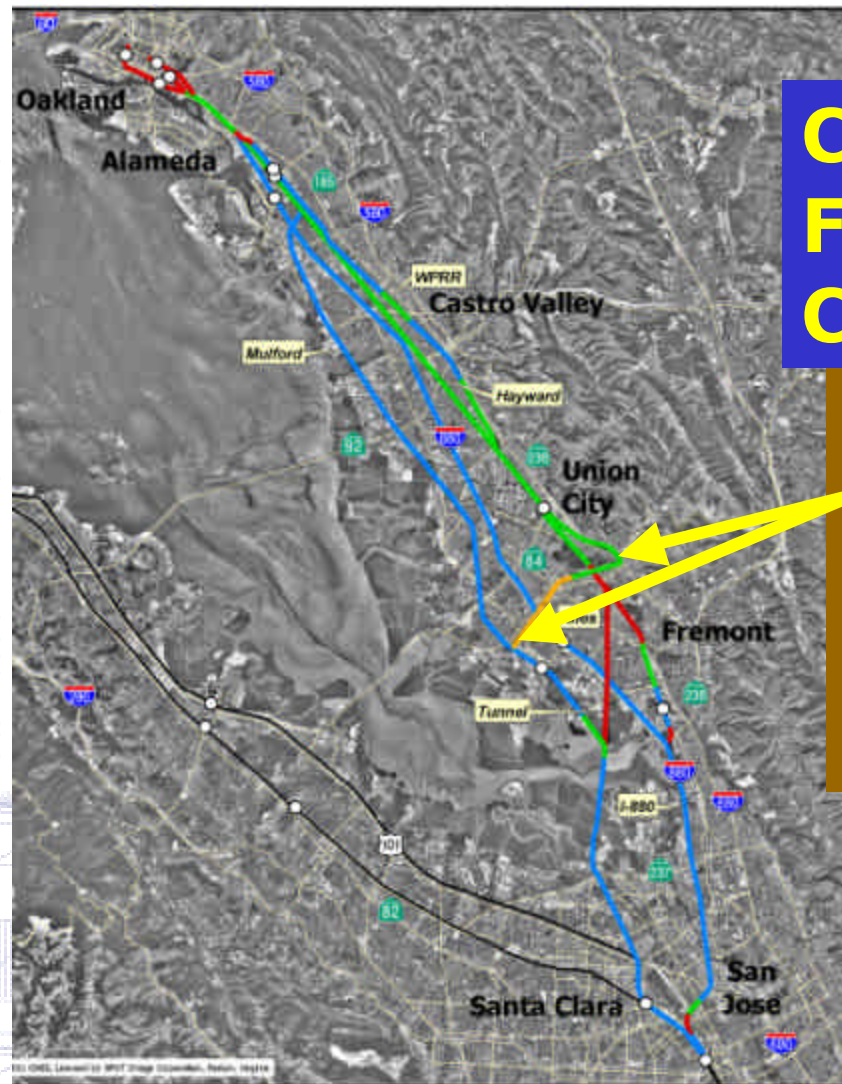
California High-Speed Train Program EIR/EI



San Jose-to-Oakland Segment

Combinations of Five Transportation Corridors

- Mulford Rail Line (UPRR)
- Niles Rail Line (UPRR)
- Hayward Rail Line (UPRR)
- Former WPRR Line (UPRR)
- I - 880

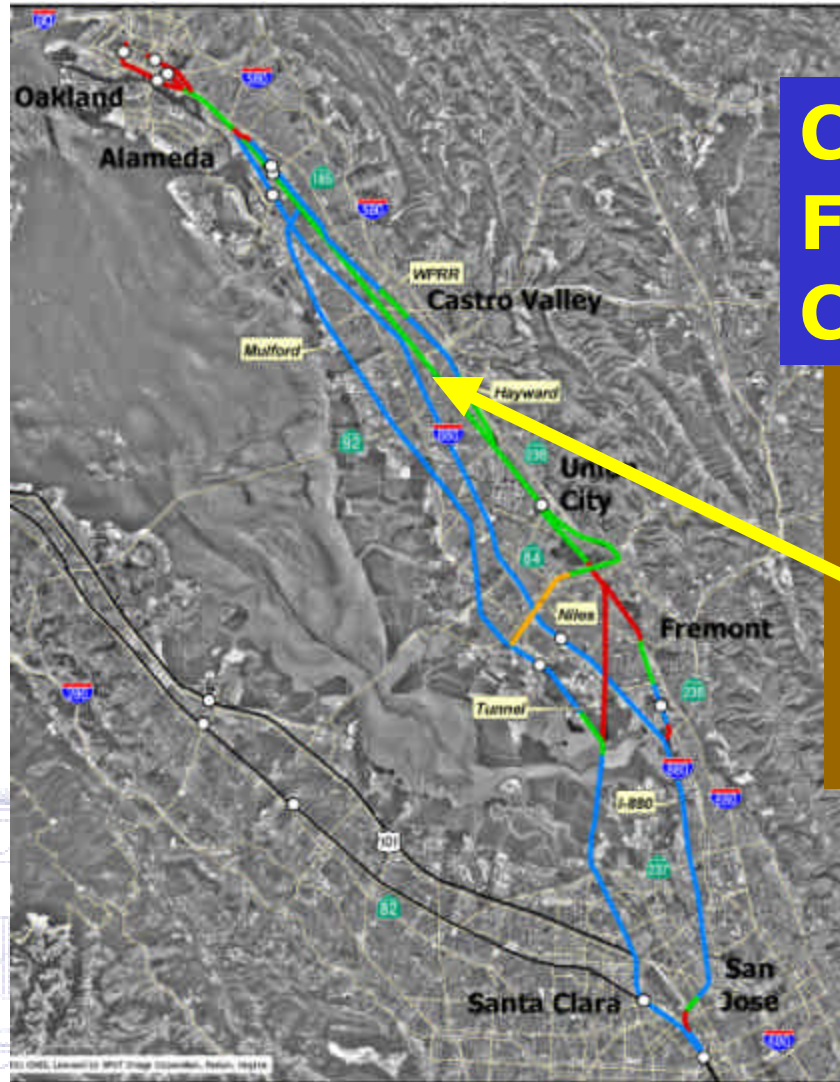


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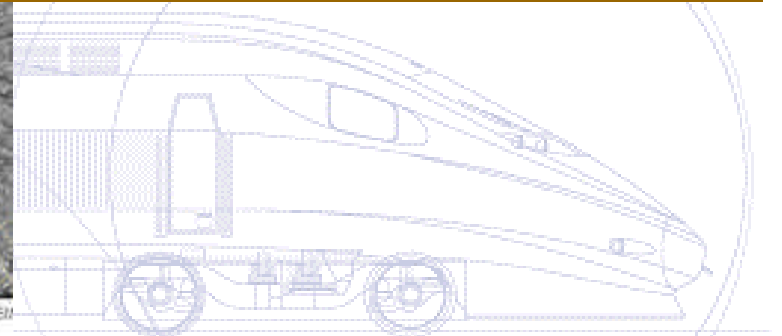
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- **Mulford Rail Line (UPRR)**
- **Niles Rail Line (UPRR)**
- **Hayward Rail Line (UPRR)**
- **Former WPRR Line (UPRR)**
- **I - 880**



iv. *Image Acquisition Dates:* January 1998 - September 2000

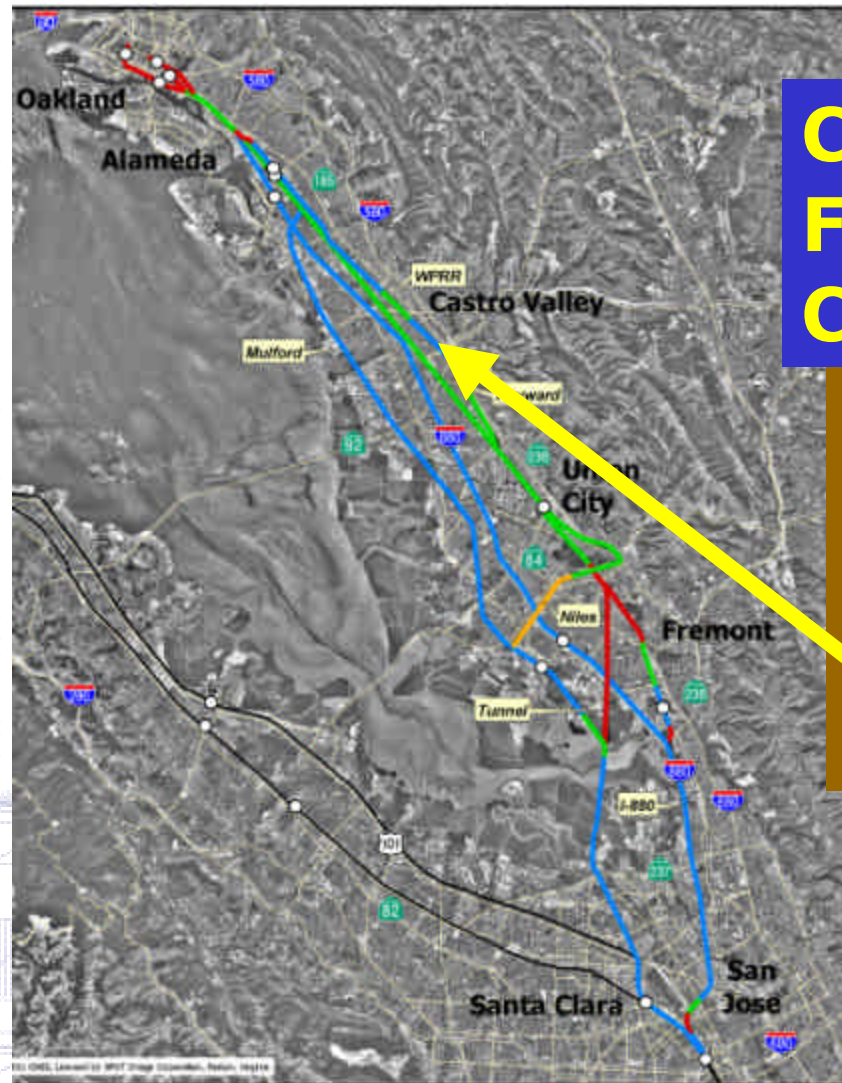
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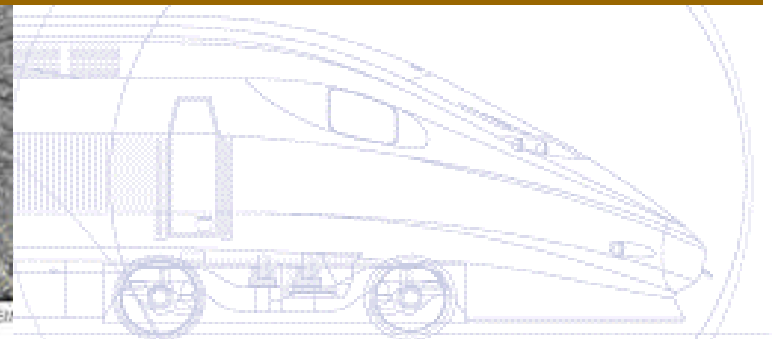
Combinations of Five Transportation Corridors

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- **I - 880**



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California High-Speed Train Program EIR/EI

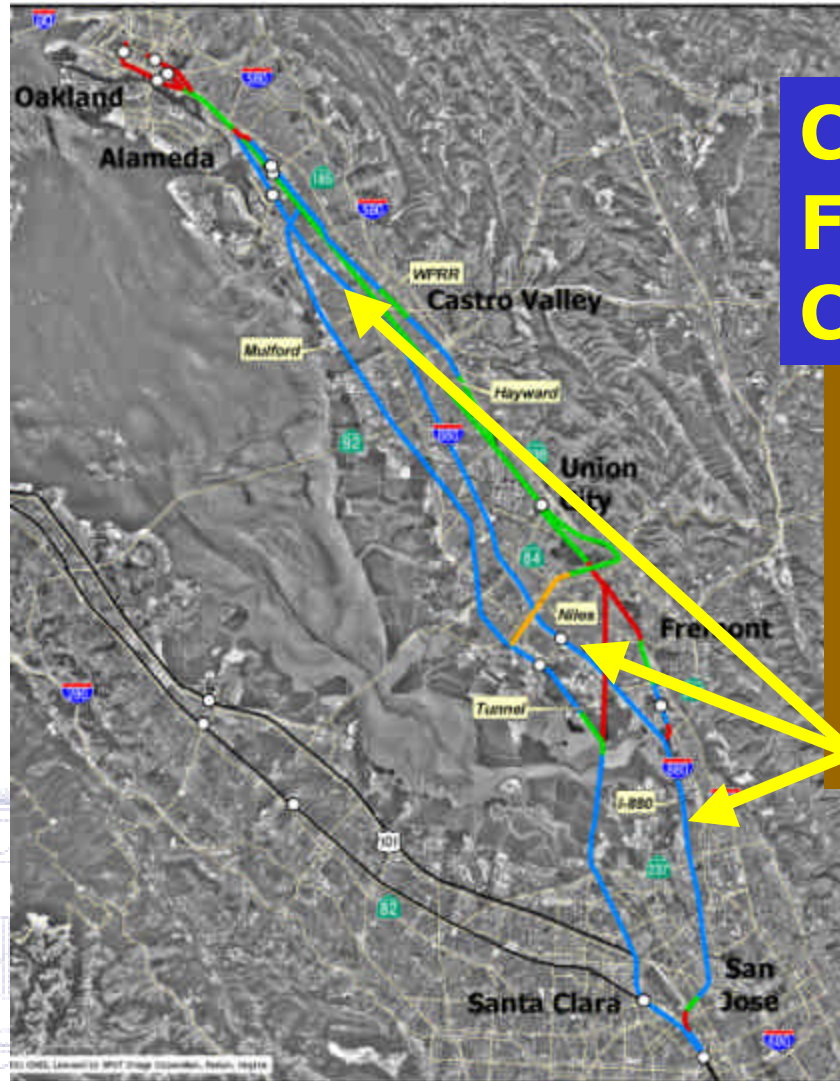


San Jose-to-Oakland Segment

Combinations of Five Transportation Corridors

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I - 880

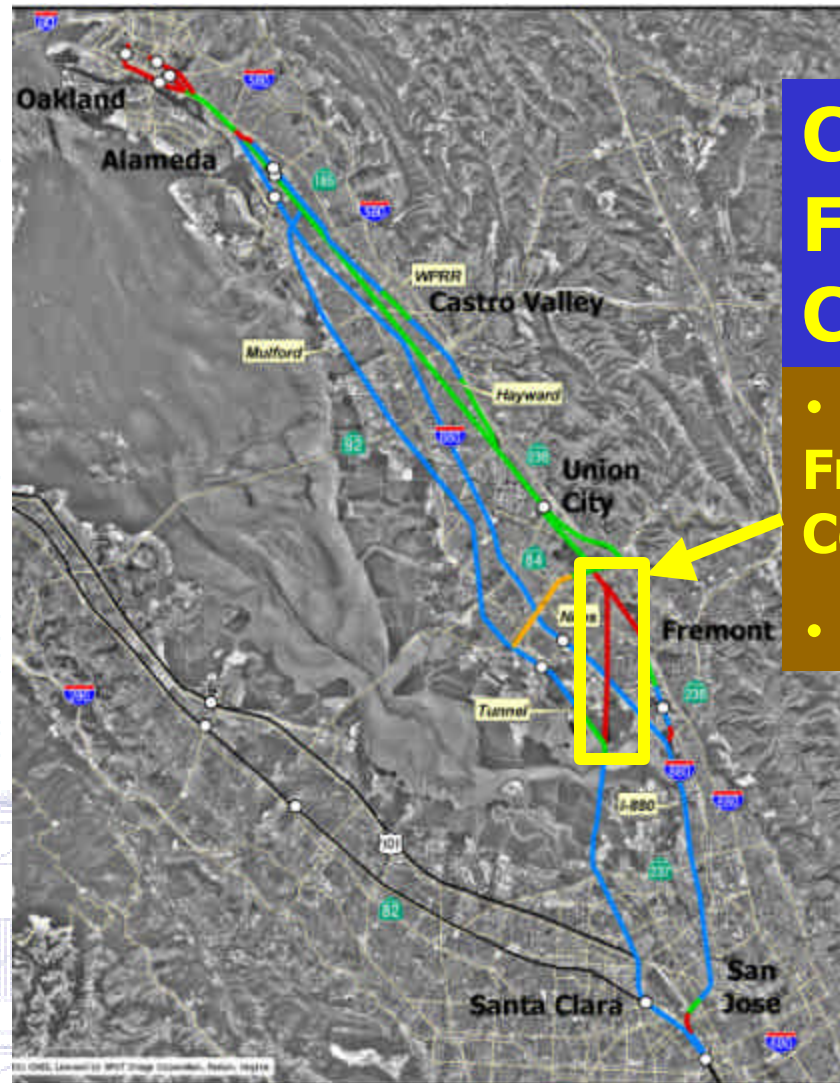


U.S. Department of Transportation Federal Railroad Administration

California High-Speed Train Program EIR/EIS

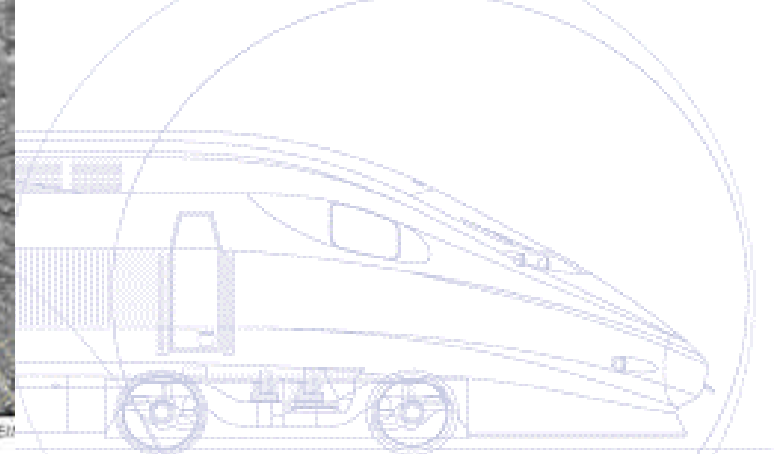


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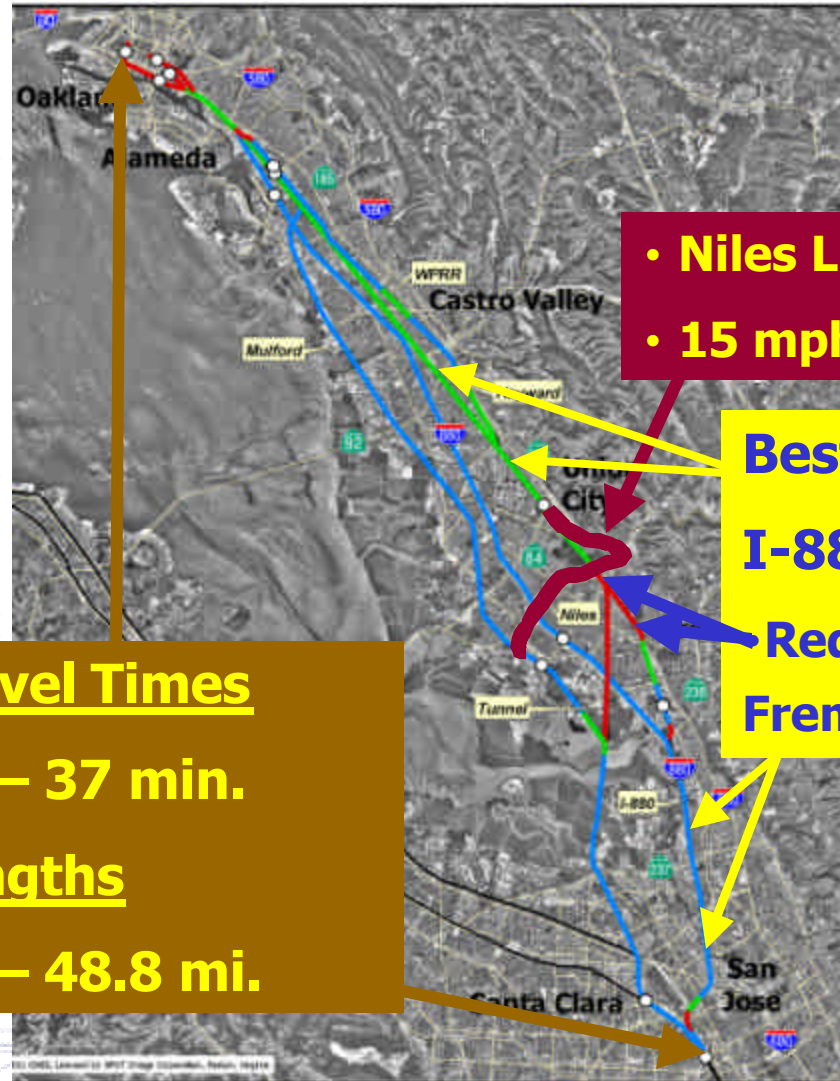
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California High-Speed Train Program EIR/EIS

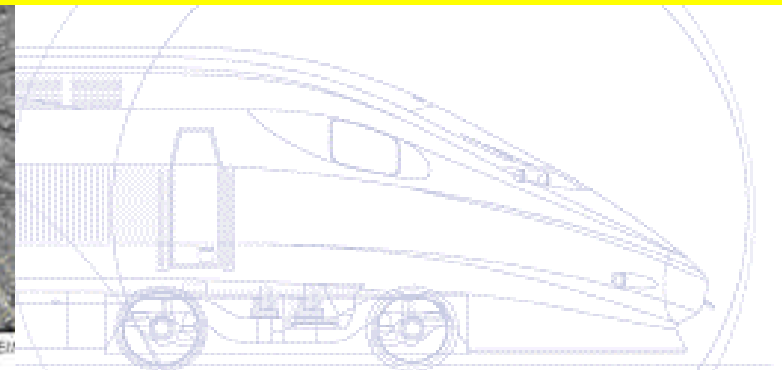




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42 – 48.8 mi.



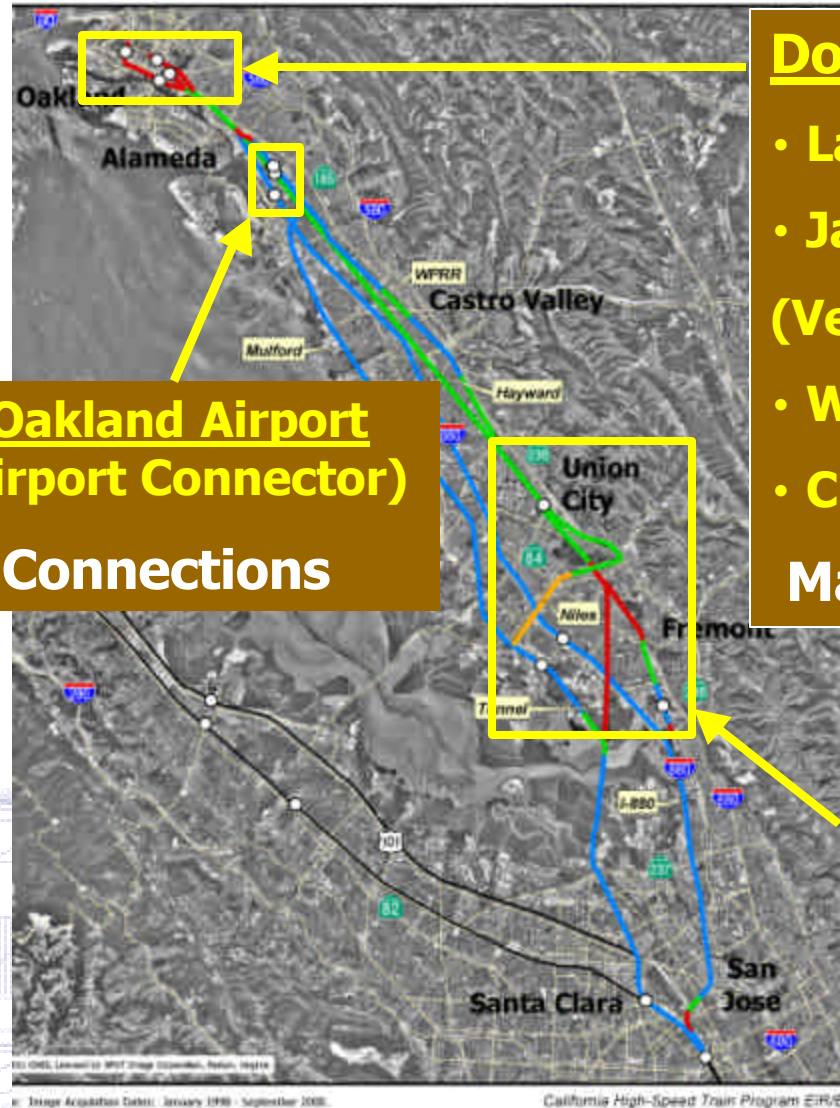
Station Options

Downtown Oakland

- Lake Merritt
 - Jack London Square
(Very Difficult Construction)
 - West Oakland
 - City Center / 12th Street
- Major Catchment Area

Coliseum/Oakland Airport
(BART & Airport Connector)
Excellent Connections

Southern Alameda County
Multi-modal Options



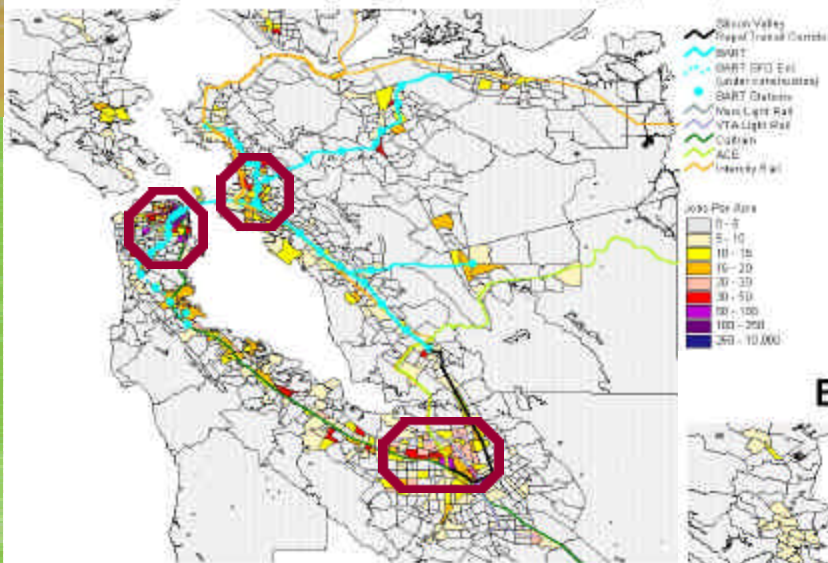
Wetlands / Wildlife Refuge / Floodplains / Natural Habitat



**Don Edwards
San Francisco
Bay National
Wildlife Refuge
On Mulford Line**

Serving Major Markets

Bay Area Employment Density (2020)



Bay Area Population Density (2020)

